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ABSTRACT

This report summarizes activities of the pilot year (1981-82) of the Louisiana School Effectiveness Study (LSES), a five-year exploration of those factors that make some of Louisiana's schools more effective than others in educating students. The pilot year of the project was conducted in the Caddo Parish School System and accomplished two tasks: (1) identification of important socioeconomic and school variables; and (2) construction and pilot testing of a questionnaire designed to measure school climate variables. It was found that schools scoring above average on the parish's State Assessment Test scores shared several characteristics: highly educated parents; students with fewest siblings; greatest percentage of fathers in professional jobs and smallest numbers of mothers in nonprofessional jobs; majority white student bodies; faculties with highest educational attainment and teaching experience; and the largest percentage of white teachers. Schools scoring below the parish's average had the reverse ratings on these characteristics. However, a predictive mathematical model found striking contrasts between predicted and actual school performance. Further analysis determined that the numerous socioeconomic variables explored were so highly correlated as to be considered one separate dimension in school effectiveness, while two separate important dimensions (teacher preparation and teacher experience) emerged among the school variables. Teacher, parent and peer expectations also were found to vary among schools of higher and lower effectiveness. Much of this report consists of tables demonstrating the study's statistical analysis of variables. Student, teacher, and principal questionnaires are appended. (GC)

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THE LOUISIANA SCHOOL EFFECTIVENESS STUDY

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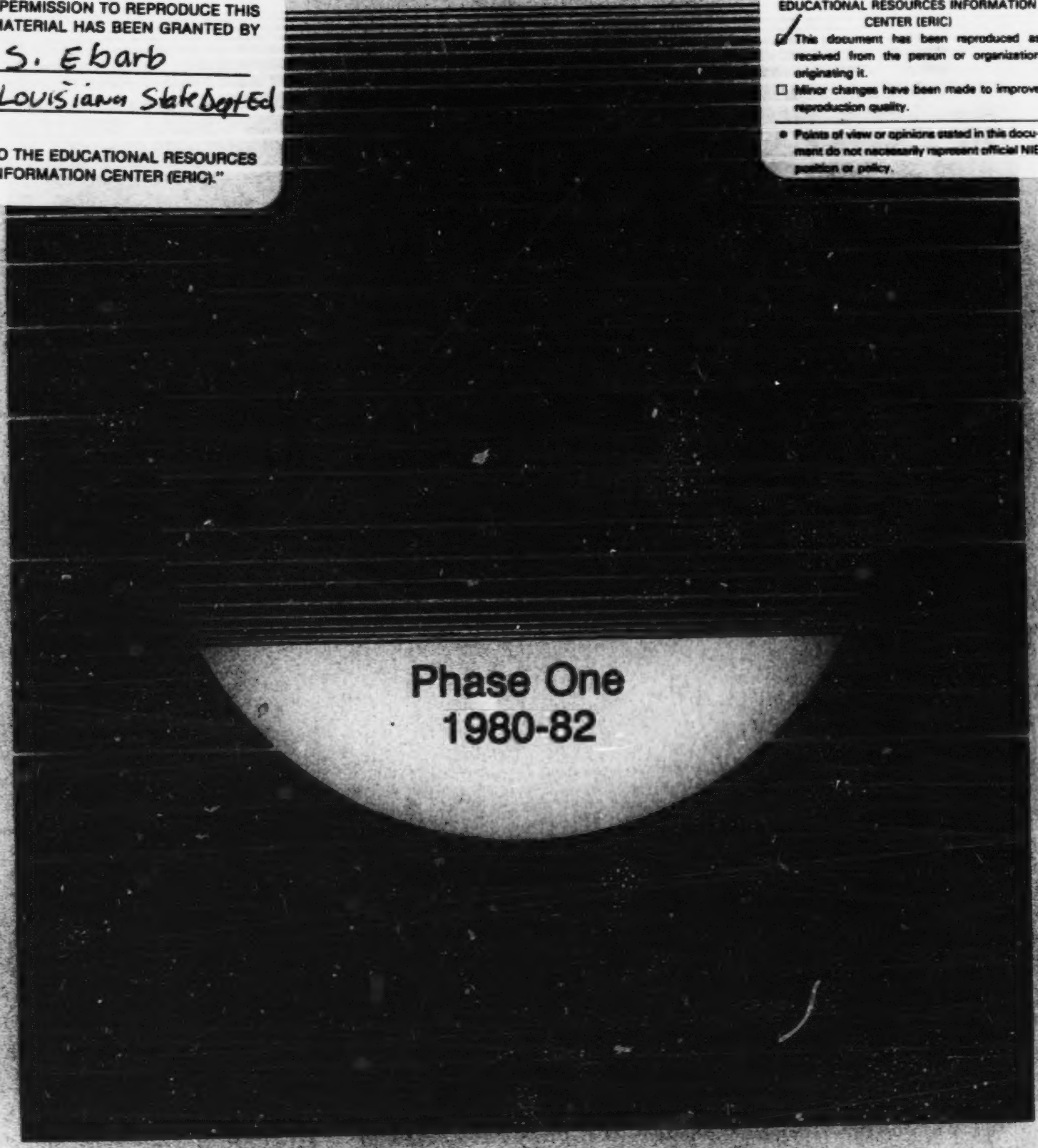

Phase One
1980-82

UD 024 590

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LOUISIANA SCHOOL EFFECTIVENESS STUDY

PILOT YEAR 1981-82

Bureau of Research
Department of Education
State of Louisiana

and

Department of Sociology
Louisiana State University

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LOUISIANA SCHOOL EFFECTIVENESS STUDY

ABSTRACT

This report is a summary of the activities of the pilot year of the Louisiana School Effectiveness Study (LSES). The joint project is being conducted by the Office of Research and Development, Louisiana Department of Education and the Department of Sociology, Louisiana State University. LSES is being conducted as a mandate of R.S. 17:391.3(E).

Our hypothesis is that given the same socioeconomic characteristics with both students and faculties, some schools produce better educated students than others. Some of the factors are known elements. In fact, previously conducted research has isolated factors that explain approximately 60 percent of the variance (differences in student achievement). This project is attempting to determine the factors that explain the remaining 40 percent of the variance.

Therefore, we have conceived this study as a five-year exploration of those factors that make some Louisiana schools more effective in educating students. The pilot year of the project accomplished two tasks:

- important socioeconomic and school variables were identified
- a questionnaire was constructed and pilot tested to measure variables in the school educational climate.

The Caddo Parish School System provided the site for the pilot study. The system shared results from the 1981 State Assessment Test as well as pertinent socioeconomic characteristics of its students and faculties.

Profiles were generated describing how well individual schools actually performed compared to average parish test results on the State Assessment Tests. Schools were grouped into three areas: "above," "below," or "equal to" the parish's average test scores categories. Next, profiles were generated describing how well individual schools performed relative to their expected performance on the State Assessment Tests. Thus, the profiles reflected comparisons of both actual performance and expected performance.

There was much variance between the "above" than and "below" than groups in the actual performance profiles. Specifically, those schools scoring "above" than the average parish score had the following student characteristics:

- highly educated parents
- fewest siblings
- greatest percentage of fathers in professional jobs
- smallest number of mothers in nonprofessional jobs

In addition, the majority of these student bodies were white. Students in schools scoring "below" the parish's average assessment scores had reverse ratings on these characteristics. Students from schools scoring "equal to" the parish's average had ratings in between.

Further, schools scoring "above" the parish's average assessment scores had faculties with the following characteristics:

- the highest common and area scores on NTE
- the largest percentage of white teachers
- the highest years of teacher experience
- the most graduate education, and

- the highest percentage of graduates from colleges with high prestige

Schools scoring "below" the parish's average had the reverse ratings on these faculty characteristics.

The investigators developed a mathematical model allowing predictions of how well schools should perform on the State Assessment Test given different socioeconomic and school characteristics. Comparison between actual performance and expected performance presents a striking contrast to those results just described. Comparisons between schools scoring "above" expected with those scoring "below" expected revealed that socioeconomic characteristics of the student bodies as well as school characteristics were very similar. One of the investigators' hypotheses was that these similar school inputs could yield different results building by building. These results lend partial support to that hypothesis.

Further results from the analyses of this secondary data are also presented. These analyses had three purposes: (1) to determine how much variation in state assessment scores can be explained by both socioeconomic and school variables; (2) to compare the relative strengths of these socioeconomic and school variables in explaining variation in state assessment scores; and (3) to determine which school variables are the most important in explaining state assessment scores. The regression models used in these analyses vary by grade level and by number of independent variables in the models.

The results of these analyses are very consistent: (1) the set of socioeconomic variables and the set of school variables can separately explain a significant amount of the variance in state assessment scores; (2) when combined in one set of predictors, the two sets of variables explain common or overlapping variance plus some additional variance unique to each set of predictors; and (3) a reduced model (with six variables) explains as much of the variance in state assessment scores as a larger model (15 to 17 variables). An analysis, which enables the investigators to take into consideration the effect of the students' socioeconomic characteristics before entering the effect of the schools' characteristics, yields interesting results: (1) across grade levels, school characteristics explain a consistent, modest amount of variance in assessment scores beyond that accounted for by the students' socioeconomic characteristics; (2) this fluctuates by grade level with less additional variance explained by school characteristics at the third grade level; and (3) this also varies by subject area with more additional variance explained on some tests than on others.

The correlation between the socioeconomic and school variables led the investigators to perform additional analyses that would determine underlying dimensions or commonalities among these variables. It was determined that the socioeconomic variables are so highly correlated that they could be considered to be one separate dimension, while three separate dimensions emerged among the school variables. Two of these dimensions appear to be important: (1) variables associated with teacher preparation [including mean faculty score on both the NTE Commons and Area Examinations and average prestige of the universities from which faculty members were graduated]; and (2) variables associated with teacher experience [including teacher experience and highest degree received].

The investigators decided to explore further differences in schools scoring "above" and "below" expected on state assessment tests by administering a questionnaire to students in a selected group of schools. The questionnaire was adapted from a recent study of school educational climate conducted in Michigan. It was revised based upon our own pretest in Iberia Parish. A technique to measure student time-on-task was also pretested in Iberia Parish, but this technique will not be extensively used until the 1982-83 year of the study.

Once the questionnaire was revised, it was administered to approximately 565 students from 10 schools in Caddo Parish. For the purpose of data analysis, these schools were divided into those predicted to score high or low on state assessment tests and those actually scoring high or low.

Students from those schools predicted to score higher perceived their parents and peers to have higher educational expectations for them. However, teachers of students in schools predicted to score lower are perceived by their students as having higher educational expectations for them. This contradiction between perceptions of teacher expectations and of parent/peer expectations was explained in terms of the teachers from the lower predicted group being more willing to urge their students to perform better.

Students from schools actually doing well had a greater sense of personal control over their academic lives and also had higher educational expectations than students from schools actually doing poorly. The differences are explained by school educational climate, rather than student socioeconomic background. Students from schools actually scoring well report a better learning environment.

Additionally, there was an overall pattern of results in which students from schools that scored inconsistently with regard to prediction (i.e. high expectation and low performance; low expectation and high performance) responded alike as did students from schools that scored consistently with regard to prediction.

In schools in which scoring was inconsistent with prediction, there is evidence of greater teacher expectation. This has several repercussions for the students in those schools:

- they feel less sense of personal control in their school work
- they perceive a more structured classroom environment, and
- they internalize the teacher expectations, yet may not feel capable of meeting those standards.

The results of these analyses from the pilot year of LSES have given investigators a number of interesting areas to pursue in the next year of the project.

Goals for the 1982-83 year of LSES include:

- a continuing review of the school effectiveness literature, with special emphasis on studies conducted by other state departments of education
- incorporation of a time-on-task methodology into the research design
- final revision of the questionnaire, emphasizing more sophisticated measurements of childrens' perceptions of social/psychological variables; and
- expansion of the study to a representative sample of approximately 100 schools throughout Louisiana, based upon a modification of a sampling system used for the 1982 Louisiana minimum competency testing pilot project.

In summary, we are seeking information that defines in measurable terms why some schools work and why others do not do an adequate job in educating young people. At the end of the pilot year, we feel we are a step closer to knowing some of these answers.

CHAPTER ONE
INTRODUCTION

I. Enabling Legislation

In 1977, the State of Louisiana passed its first educational accountability legislation (Louisiana R.S. 17:391). This legislation was phrased so that agencies such as the State Department of Education were given a broad inclusive mandate to undertake research on the educational process in Louisiana. The authors of the act realized that, in the absence of codified information on the educational process, both time and considerable effort would be required to generate such information. This would entail the establishment of standardized tests to be used throughout the state, the administration of these tests, the collection of data from them, and so on. The State Department of Education (through the Office of Research and Development) has initiated the development of appropriate testing instruments and, in fact, has produced results for school districts throughout the state. But these results tell us little about why districts vary; why some do well, while others do poorly. Ultimately, the question being asked here is the degree to which children learn their subjects as measured on a test given to them. The need to understand the process by which this happens is clear in Louisiana R.S. 17:391.3.

> In carrying out the accountability program, the local school boards and the State Department of Education shall identify and define educational variables which may affect learning. These variables shall include, but not be limited to, the physical, intellectual, social, and emotional development of pupils. Educational variables, surveys or studies shall be conducted by the State Department of Education to assess their relationship to learning.

To this end the investigators have begun the Louisiana School Effectiveness Study (LSES).

II. Basic Definitions

A. What Is a "School Effect"?

The idea of a school effect is well rooted in the sociological and educational literature. What is posited by this concept is that some quality is thought to exist in the school as a whole which affects the students in the school. This is not necessarily a quality that can be seen or felt in any direct way, but it nonetheless is thought to exist. Some may think of it as a particular ambience or aura found in a given place. It is much akin to saying "the whole is greater than the sum of its parts." In other words, individually, each of us could not, indeed would not, have this effect; only in the collective or aggregate do we experience it.

This aggregate quality is important to understand so that the meaning of school effects is clear. One can visit any school district (in Louisiana or elsewhere) and one can quickly be informed about the "good" and "bad" schools. At first, these places are not usually described in terms of their student bodies but, rather, in terms of the school as a totality. It is only after probing that one hears details about a principal, the students, and other particulars about the school. In a causal fashion, the relationship between the students and the school is an interesting one. The question which can be posed is simply this: Do good students produce good schools or is the reverse true? This question is complicated by a couple of things: first, what constitutes a "good student"? When we use this term do we mean IQ? Socioeconomic status? Behavior in schools? Second, all things being equal (i.e., controlling on as many background variables as possible), why is it that some seemingly comparable schools are characterized in such radically opposing ways, some being good and others bad?

The position taken in this study is that a school is "good" because it is effective in educating its students. It marshalls its human and capital resources in such a way that the outcome from the educational process is optimized. This position is in the best tradition of accountability research. That is, the educational process is intentionally over-simplified and made equivalent to any other productive process. This line of reasoning posits that as part of the process, a degree of quality control must be exercised. In public education, this control takes the form of regularly measuring how well students do on standardized tests. The standardized tests, then, are the products by which assessments are made about the goodness or badness of the educational experiences at any given school or in any given school district.

B. Policy vs. Non-Policy Variables

At the heart of the LSES is the attempt to unravel the process which places the school in a position of being an intervener in the child's life--an intervener between parental socialization influences on the one hand and adult outcomes for the child on the other. Previous research has documented how much influence family background factors have on predicting as student grades and test scores. The results on school-specific indicators are more mixed, with some items, such as library size and pupil-teacher ratio, being relatively unimportant, and other items, such as curriculum and teacher qualifications, being highly important. What this family-school contrast demonstrates is that there are two classes of variables in school effects research. The class of family, non-school variables is beyond the control of those directly involved in the schooling process. Although it may be true that students' scores improve in direct proportion to family income, educators can do nothing to dramatically affect this relationship--i.e., they cannot directly increase family income and thereby improve the test scores for their students. The class of school-specific variables, however, is another matter. These constitute variables which are manipulable by the educational organization. For example, decisions can be made and implemented on such matters as improvement of NTE scores, more students in certain curricula. Although the LSES will consider family background and the degree to which it characterizes an entire school (e.g., as middle class, working class.), it is principally with an eye to the school-specific variables that the project has been undertaken. This allows for an assessment of the central question guiding this study: how can school variables be used to affect student scores on standardized tests?

III. Overview of Pilot Year Activities

A. Examination of Secondary Dataset

The first task undertaken in the pilot year of the LSES was to construct a dataset composed of available indicators of the student socioeconomic characteristics and the school structural characteristics of a school system in Louisiana. The Caddo Parish school system was selected for this purpose for two reasons: (1) it has one of the most completely computerized student and personnel data systems in the state; and (2) because of the large number and variety of schools in Caddo Parish, it may be reasonably assumed that there are schools in the system which are differentially effective in educating their students. The composition of the Caddo database will be described in detail in Chapter Three.

There exists a large and constantly expanding literature on the relationship between student and school inputs and resultant school outputs [see Glasman and Biniaminov (1981) for a recent literature review]. A number of studies published in the mid-1960's and early 1970's [Coleman et al. (1966); Jencks et al. (1972); Hauser, Sewell and Alwin (1976)] presented evidence that school inputs do not have much influence on student achievement. The Coleman Report concluded that variance in academic achievement is associated with the socioeconomic and racial composition of schools, but not with school inputs.

These negative findings have sparked a number of recent studies which have yielded more positive results about the effects of school characteristics on student achievement [Bidwell and Kasarda (1975); Bloom (1981); Brookover et al. (1979); Rutter (1979); Summers and Wolfe (1977); Weber (1971)]. These studies have identified school characteristics associated with effective schools; yet each study has yielded a slightly different set of important school characteristics. This failure to yield consistent results may be a function of methodological problems in the school effectiveness area (Maldaus, Airasian and Kellaghan, 1980), or may indicate that school characteristics make different contributions in different academic environments. Examination of the relative contributions of school characteristics and socioeconomic characteristics in Caddo Parish should lead the investigators to some preliminary conclusions about the school characteristics most related to effective schooling, specifically in Louisiana.

of particular interest to the investigators in this pilot study were school variables which measured the effect of teacher and principal backgrounds and personal characteristics on students' performances in Louisiana. Recent legislation in Louisiana has required teaching candidates to make a minimum score on the National Teachers' Examinations before they are certified. Research on the relationship between NTE scores of faculty and student achievement scores in scanty and inconclusive [North Carolina Department of Public Instruction (1981); Piper and Sullivan, (1981); Stauss and Sawyer (1981)]. It is hoped that results from the LSES will guide educational policy makers in Louisiana in future decisions about the use of the NTE for teacher certification.

B. Administration of School Climate Questionnaire

The literature concerned with school inputs and outputs focuses on structural school characteristics (such as teacher qualifications, student-teacher ratio, and so forth), which can be gathered from personnel and school files. Recent evidence (Brookover, et al. 1979) indicates that social-psychological indices of school climate may also explain variance in student achievement and other behavioral outcomes of students. Brookover measures school climate in terms of a number of subsets of variables which include the students' perception of others' expectations and evaluations of them, and the norms of the school social environment.

The investigators decided to revise Brookover's research instrument and administer it to students who, from Caddo Parish schools, scored better or worse than expected on Louisiana state assessment tests. It was hypothesized that there might be school climate differences between schools performing better than expected and schools performing worse than expected. The results of this study are presented in Chapter Five.

The pilot year of the LSES thus had two basic components: (1) there was an investigation of the relative contributions of structural school characteristics and students' socioeconomic characteristics to students' performances, with an emphasis on determination of the most important structural school characteristics in Louisiana; and (2) there was a further investigation of the school climate differences that might exist between schools performing better and schools performing worse than expected on state assessment tests.

CHAPTER TWO
DESCRIPTIVE ANALYSES

I. Comparison of Schools Scoring Above, Equal to, or Below the Parish's Average Assessment Score

A. Third Grade

Tables 1 and 2 provide data on selected socioeconomic and school characteristics for the third grade students in Caddo Parish. These data were organized into three categories which reflect how well any given school did in relation to parish assessment scores--thus the categories of above, below, or equal. In addition to the summed means by school for each variable, Tables 1 and 2 also provide statistical means for each category. It is these means, in particular, which are discussed in this section of the analysis; the same means are discussed in subsequent sections for seventh and tenth grade students.

It is important to note that 36 of the 45 schools (80 percent) scored equal to or above parish averages. For a school to be classified as scoring above the parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests. Were one to graph or otherwise depict the relationship between these categorical means, it would be apparent that one can almost perfectly arrange the groups in a hierarchical way. In literally every case, those schools which scored above average do better on all variables than schools either scoring equal to, or below the parish average. Of special importance is that with three exceptions, this same comment is sustained in comparing those schools scoring below average with those scoring equal to or above the parish average. In fact, in those cases where this is not so, the schools' scores are nearly identical. Thus, those schools which did the poorest relative to parish scores also did the poorest on virtually every one of the socioeconomic and school variables.

A summary of the findings for the means is presented in Table 3. In reading these results as rows (in other words, across the page), the clarity of the findings really stands out. Students in schools which scored above the parish's average assessment score had the most highly educated parents, the fewest siblings, a greater percentage of fathers in professional jobs, the smallest percentage of mothers in nonprofessional jobs and were in schools which were always majority white. Conversely, students in schools which scored below the parish averages had parents with the lowest educational levels, had the most siblings, the lowest percentage of fathers with professional positions and were in schools which were nearly 100 percent black. For every one of the variables, in this first set of analyses, students who were in schools scoring equal to parish averages fell between the other types of schools.

When the results for school characteristics are examined, the results are similar, although not quite so uniformly hierarchical. Notice that the school scoring above parish averages had faculties with the highest Commons and Area scores on the NTE, had a higher percentage of white teachers, had fewer teacher absences, but higher years of teacher experience, more graduate education, more prestigious college degrees, a lower number of total students in the school and, importantly, a somewhat higher student-teacher ratio. Again, the exact opposite held for those schools scoring below the parish averages. Their faculties had the lowest NTE scores, higher absences, and so on. The most paradoxical finding from this particular analysis is that schools scoring below parish averages had the lowest student-teacher ratio; this finding runs counter to what many people believe should be helpful to school achievement scores, and it is a point to which the investigators return in later analyses.

B. Seventh Grade

Virtually every one of the above observation made about third grade schools holds equally for seventh grade schools. The means for these schools are contained in Tables 4 - 6. In this case 77 percent (14 of 18) of the schools scored at or above the parish average for all seventh grade schools. Again, in every important comparison schools scoring above the parish average fared better than those scoring below. This, again, includes all socioeconomic variables, teacher NTE scores, absences, and so on. This finding also holds for a variable not used with third graders--days suspended. Note that the figure for days suspended is lower for schools scoring above average than for schools scoring below average. Again there are higher student-teacher ratios in schools scoring above or equal to the parish average assessment scores.

A final point on the seventh grade analysis bears mentioning. It was noted above that there was a hierarchical ordering to the categories, ranging from schools scoring above average through schools scoring below average. This finding also was observed for the seventh grade in nearly every case. The exceptions were for the seventh grade was teacher experience and total number of students.

C. Tenth Grade

Results for the tenth grade schools are reported in Tables 7 - 9. Since only one school scored above the parish average, it was deleted from further mention here. It should be noted, however, that this school's characteristics are substantively interesting and further support previous findings about those schools which scored above parish averages. Focusing only on those schools scoring equal, to or below the parish averages, earlier findings are again confirmed. Children in the more successful schools are from better educated families with parents more likely to be in professional occupations. These schools are also more likely to be majority white, in both students and teaching staffs, have teachers with comparatively higher NTE scores, and so on. In general, what one finds with those schools scoring below the parish averages is that they are over-represented by majority black schools. Thus, they have lower educational levels for the parents and a greater number of siblings. More relevant for educators is that these schools also have majority black teaching staffs who have performed more poorly on the NTE.

D. Summary

This part of the analysis has been intended solely to give the reader an overview of the characteristics of the schools for which there are data. The correspondence between the categories and race is isomorphic (i.e., nearly 1:1). Phrased differently, knowing the race of a school would allow one to predict where it scored relative to an overall parish average on any given state assessment test. This is neither surprising nor controversial. Instead, it reflects the well known fact that blacks are over-represented in terms of economic impoverishment. Given that there is a fairly substantial relationship between familial economic advantage and assessment scores, one would expect that schools in Caddo Parish would be much like those elsewhere; and, in fact, they seem to be.

The problematic quality to this part of the descriptive analysis is that the majority black schools in which students do comparatively worse than do students in predominantly white schools have certain structural qualities which have nothing to do with the students. Three things stand out. First, these schools consistently, across all grade levels, have teachers with lower NTE scores. While NTE scores may not be equated with teacher effectiveness, they are nonetheless one indicator of teacher intellectual ability (as measured on this test). Second, as was alluded, this may be an artifact of teacher race, since these schools almost always have majority black teaching staffs; this point will be examined in further analyses. Third, and also across all grade levels, these schools always have higher teacher absences. While this is only speculative, its consistency at least suggests that these teachers are somewhat less satisfied with their job situations than are other teachers.

II. Comparison of Schools Scoring Above, Below or Approximately As Predicted on State Assessment Tests

Were one to form policy directives based on the preceding analysis, one would probably wish for every child to attend majority white schools, with majority white teaching staffs, since those schools so consistently outperformed all others. However, the analysis reported above addresses a deceptively simple question: Relative to parish norms (i.e., averages), how well does any school do? The shortcoming to this kind of approach is that it fails to consider the different inputs each school has. Phrased differently, it is known that two schools whose socioeconomic characteristics are radically diverse will, in all probability, report highly different test scores. All that this kind of analysis can tell, then, is the degree to which schools vary with regard to actual performance. Nothing can be said about how well schools should do, given their different inputs. This part of the analysis focuses on that issue.

The results reported in Tables 10-15 are all based on regression equations which allowed the researchers to control on the different resources which schools have. The specifics of these regression equations, and how they were used to generate expected scores for schools, will be discussed in Chapters Three and Five. In keeping with the argument outlined above, the regressions allow one to say that given a certain set of resources, any given school should be expected to score within a certain range of values on a standardized test. For our study this was the state assessment test. All things being equal, two schools with similar resources should score approximately the same on the test. This can be made analogous to two investors with the same amount of money to invest. If all controls are exercised on the time which they control their money, and if each has the same opportunities presented to him/her to invest, then it is possible that each will realize the same returns on his/her investment. If, on the other hand, each realizes a much different return -- one highly successful and the other not -- then it can only be due to the investment strategy which was chosen. In schools, a similar thing can happen. Two schools which appear from socioeconomic and other characteristics to be alike may have test scores which are very different. How can this difference be explained? As stated at the outset of this report, some researchers argue that this differential outcome is, at least in part, the result of a "school effect."

Of course, it is school effects which interest the investigators. In this part of the analysis the researchers begin to address them more specifically because the analyses are based on regression models.

Presented now is a descriptive account of the regression results, focusing on a comparison of the socioeconomic and the school characteristics of those which did better, worse, or equal to what was predicted. These comparisons will indicate how schools differ, given our expectations for them.

A. Third Grade

Analyses for the third grade are found in Tables 10-12. The analyses contrast sharply with those presented earlier. In these earlier analyses, there were consistent differences between schools which met, or failed to meet, parish averages. Here that is not the case. Instead of sharp contrasts, there is incredible similarity. Looking across the rows for each variable, there is case after case of comparable mean values (See Table 12). While statistical means aie only a measure of central tendency, and thus obscure or overlook some of the variation between schools within each category, they do give a graphic demonstration of how much alike the aggregates of schools are when using predicted scores as the basis for grouping them.

Parental educational and occupational values vary little between the categories--in fact, more often than not, they are nearly identical. When there are slight differences, the differences occur in the group scoring approximately as predicted. Likewise, NTE scores are virtually the same for the three categories with only ten points separating the highest and lowest scores.

There is a one percent difference in the percentage of students who are black and in the percentage of the faculty that is black between those schools with students scoring above and below predicted scores. This same kind of comparability obtains in every other comparison, except for total school population, where the group scoring approximately as predicted, has more students than the other two groups.

If the analysis went no further, the investigators would be in the awkward situation of concluding that whether or not a school does well is by luck of the draw. Indeed the statistical means vary so little across the categories that predicting whether a school will do well or not seems impossible.

On the other hand, another interpretation can be offered. This interpretation is the one subscribed to herein--which is consistent with the thesis about school effects. The position is that schools do differ in their outcomes, controlling on inputs. It is true that when one looks at the categorical means, the schools are very similar; however, when one looks at the state assessment scores, the schools perform very differently. Thus, given similar inputs, schools do yield different results.

To illustrate this point, examine the values for schools A2, A6, A7 and A8 for the schools scoring above what was predicted, and then examine schools B5 and B7 for schools scoring below. Although they are not mirror images of one another, many of their socioeconomic and school characteristics are quite comparable. In all cases but one, parents have between 3.6 and 4.0 units of education (i.e., approximately high school graduates). The schools have virtually all black students, and in no school are more than ten percent of the fathers employed as professionals. Yet, these schools differ on educational outcomes--some doing better than predicted, others doing worse. Clearly, some process occurs in one set of them which is absent in the other. Attempting to unravel this empirical mystery is part of the reasoning for conducting the regression analyses.

B. Seventh and Tenth Grades

Virtually every comment made in the previous section for third graders could be repeated here. The data for the seventh and tenth grades are found in Tables 13-15. In this particular analysis, the seventh and tenth grade schools were combined into one analysis, so that the number of observations was sufficiently large to generate predicted values. Again there is very little variation between the categories of schools. The family variables are very much alike in every case: parental educational and occupational level and number of siblings are similar from one group to another. It is only the percentage of blacks of in the student body that shows any real variation, and then it is only eight percent. The school variables are also remarkably similar, with the only variation occurring in the number of students, the student-teacher ratio, and the average number of days suspended per student. These numbers are low for the schools scoring above the score predicted, probably because a magnet school is included in that group.

CHAPTER THREE
ANALYSES OF SECONDARY DATA

I. Introduction

A. The Use of Regression Analysis in the LSES

While the descriptive part of our analysis is informative, the nature of the statistics employed does not allow for an evaluation of how much any one variable (or set of variables) influences state assessment scores. Instead, the descriptive statistics give one a feel for how different kinds of schools either differ or appear to be similar (as in the last series of comparisons).

In this section of the report regression analysis is introduced. The investigators could, of course, move from simple descriptive statistics to simple measures of correlation, which summarize the strength and direction of association between two variables. These would give a crude measure of association, whereby one could say how much any two variables are associated with each other when no controls are employed. For example, it is known that both a mother's and a father's educational levels are associated with a child's achievement scores. The statistical impact of each may, however, be decreased when controlling for the presence of the other. Phrased differently, one acts in conjunction with the other not completely independent of the other. Instead of simply reporting correlation coefficients, results of regression analyses will be reported in this chapter. Regression analysis allows one to determine how much effect any one variable has when controlling on the effects of all other variables being utilized. Using this technique the researchers attempt to explain or predict how well a group of students does given a certain set of input variables. The inputs consist of independent variables such as a mother's and a father's education, race, and so on. The outputs which the researchers try to explain are the dependent variables, state assessment scores.

Regression analysis is commonly used by school effects researchers (Glasman and Biniaminov, 1981). Of particular interest to them is sorting out just how much effect schools have. This is not easy to do, however, since school effects are almost always indirectly assessed. Recalling the earlier discussion in Chapter One, there is, technically, no such thing as a school effect. One cannot go to a school and latch onto a school effect with a pair of calipers. However, in visiting schools, it is often undeniable that there is a certain aura or ambience to a school, which distinguishes it from some other school. This quality is the product of the various factors which go into making up a school. It is known that students are influenced by a great many individual factors, each with its own unique influence. However, no one of these may be entirely responsible for explaining how well or poorly any given student does in school. Individual attributes (for example, family background, teacher experiences, facilities of the school, and so forth), then, may in conjunction with one another produce something which is greater than any one of them individually. In short, the idea of a school effect attests to the adage that the whole is greater than the sum of its parts.

School effects research tries to assess how this holistic quality affects the educational outcomes for students, by disaggregating the whole to consider the role each part plays. Regression analysis is a multivariate technique, which allows a researcher to statistically address the issue of how several things vary simultaneously with any one fixed thing. In this case, the researchers are particularly interested in utilizing regression analysis to estimate how much variation in the dependent variable is a function of socioeconomic variables alone and of school variables alone. This explained variation will be referred to statistically as a multiple correlation coefficient ($\underline{r}^2$). At the risk of redundancy, this statistic allows one to assess the influence of one set of independent variables (or one independent variable) when controlling on the effects of all other independent variables. This statistic is of particular interest to the investigators in trying to unravel the unique contribution which school variables make to student assessment scores.

B. Data Sources for the Secondary Analysis

Data sources for the secondary analysis included: (1) student files provided by Caddo Parish; (2) personnel files provided by Caddo Parish; (3) personnel data provided by the Bureaus of Elementary and Secondary Education at the Louisiana State Department of Education; and (4) state assessment data, including socioeconomic characteristics of tested students, provided by the Bureau of Accountability at the Louisiana State Department of Education. The student and teacher files were from the 1980-81 school year. The state assessment data were from the spring, 1981, administration of the state assessment tests.

The data elements included in the secondary analysis for the LSES are included in Appendix One. Altogether, fifty-seven variables were included in the final dataset. Only forty-one variables are listed in Appendix One; the other sixteen variables included raw data from which percentages were constructed, redundant variables, and identifier variables. The dataset is divided into faculty characteristics, principals' characteristics, students' characteristics, other school variables, students' socioeconomic characteristics and dependent variables. All those variables included in faculty characteristics, principal's characteristics, students' characteristics and other school variables are considered to be school variables.

C. Purposes of the Secondary Analyses

There were three general purposes for the secondary data analyses:

(1) To determine how much variance in state assessment scores can be explained by secondary socioeconomic and school variables

(2) To compare the relative strength of these socioeconomic and school variables in explaining variance in state assessment tests

(3) To determine which school variables are the most important in explaining state assessment scores

II. Regression Models for Third Grade Only Schools

A. Introduction

The first regression models to be reported are based on data from schools in which the third grade state assessment tests were administered. Regression models for third grade schools alone have two advantages: (1) data is not aggregated across different grade levels and are, therefore, less suspect to certain biases; (2) there are more schools with third grade classrooms [45] than schools with seventh grade [18] or tenth grade classrooms [11]. The second point is especially important, since the larger the number of schools, the more stable the regression models will be. Additionally, the investigators were particularly interested in the educational process at the elementary grade levels, where schools could have their greatest impact on students.

The first relationships among the variables in the dataset examined are their correlations. As noted previously, correlation coefficients summarize the strength and direction of association between two variables. The first correlation matrices to be examined for the third grade schools contain thirty-two variables. The original fifty-seven variables in the dataset were reduced to thirty-two by eliminating those variables which were (1) conceptually identical to one another; (2) combinations of other variables; (3) missing on a large number of observations; (4) illogical for inclusion, such as school code; or (5) dichotomous in nature, since such variables are inappropriate for the particular correlational analysis employed in this study.

Appendices Two and Three contain correlation matrices for data from the third grade only. Appendix Two contains the full thirty-two variable matrix, which includes 512 correlation coefficients. Appendix Three is a correlation matrix of the three assessment test scores by the thirty-two variables. These two matrices were used to select variables for inclusion in the regression model.

By examining the correlation matrix in Appendix Two, the reader can appreciate the need to reduce the number of variables in the study. The original correlation matrix is simply too large to interpret without reduction. Additionally, many of the variables are highly correlated with one another, indicating that a smaller number of variables may more parsimoniously describe what the larger number can.

This reduction is accomplished in two ways: (1) examining the full correlation matrix among all of the variables and eliminating those that are highly correlated; (2) examining the correlation matrix between state assessment scores and the full set of predictor variables, and eliminating those variables that are poorly correlated.

A fifteen variable model was selected using this technique. These variables include five socioeconomic variables and ten school variables and are listed in Table 16.[1] It should be noted that several of these fifteen variables are still highly correlated with one another, but have been retained because of their separate theoretical importance. For example, the percentage of black students in the school and the percentage of black teachers on the faculty are highly correlated; yet the first variable is considered a socioeconomic variable and the second a school variable. As such, they represent conceptually distinct, but statistically related variables. Another example of retaining correlated variables is the inclusion of the mean faculty score on both the National Teachers Examination (NTE) Commons and Area Tests. While the two variables are correlated, the investigators are interested in the separate relationship that exists between each test and state assessment scores.

Given the high intercorrelations that still exist within the fifteen variable model, a second set of reduced models was also run. This set of reduced models, consisting of the best six variables for each of the three assessment tests, was developed for two reasons: (1) the reduced model would have fewer variables and, thus, fewer high intercorrelations among the variables; and (2) the results of each reduced model could be compared against each full model to check for consistency of findings.

It was decided to have six variables in the reduced model because: (1) examination of variance explained by differently sized models indicated that little additional variance was explained beyond the six variable model; and (2) a six variable model might allow the inclusion of two or three variables each from the socioeconomic variable set and the school variable set.

The regression analyses described below will indicate how much of the variance in state assessment scores can be explained by the included socioeconomic variables alone, school variables alone, and the two sets of variables together. The investigators were also interested in determining how much additional variance in state assessment scores could be explained by the school variables after the effect of the socioeconomic variables had been taken into consideration. It is assumed that socioeconomic variables influence the learning process prior to the effect that schools can have. A procedure known as stepwise regression analysis will be used to examine these relationships.

B. Results

The full and reduced[2] models were run for each of the three state assessment tests, thus resulting in six analyses. The fifteen variable models will, of course, contain the same variables for each state assessment test; the six variable models may contain a different set of variables for each test, depending on which set of variables explained the most variance.

Table 17 presents the proportion of variance in the dependent variables explained by each of the six multiple regression analyses. Two numbers are reported for each analysis: (1) the r^2 statistic, which is the proportion of variance in the dependent variable explained by the independent variables; and (2) the adjusted r^2 statistic, which corrects the proportion of variance explained by considering the number of independent variables in the model and the number of observations.

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[1] One school variable, the number of students in the school, was included in the model despite low correlation with state assessment scores, because it had been shown to be an important predictor on the district level in earlier research (Bidwell and Kasarda, 1975). model (adjusted r^2 ranging from 38 percent to 62 percent across tests) to the reduced model (adjusted r^2 ranging from 39 percent to 63 percent across tests).

Using the full model, both the socioeconomic variables and the school variables explain a significant amount of the variance in all three of the state variables still explain a significant amount of the variance on all three tests, while the school variables do so on two of the tests. The variance explained by the socioeconomic variables remains consistent from the full assessment tests. When looking at the reduced model, the socioeconomic

For the school variables, the variance explained drops from the full model (adjusted $\underline{r}^2$ ranging from 28 percent to 40 percent across tests) to the reduced model (adjusted $\underline{r}^2$ ranging from 6 percent to 29 percent across tests). This reduction in variance explained is, of course, attributable to the smaller number of school variables in the reduced model as opposed to the full model. Table 19 lists the variables in the reduced six variable model for third grade schools.

Some interesting results can be noted when both sets of variables (socioeconomic and school) are included in the multiple regression analysis (see table 17). Looking at unadjusted $\underline{r}^2$, both sets of variables explain only slightly more variance than that explained by the socioeconomic variables alone. This suggests that socioeconomic variables and school variables explain some common or overlapping variance in the dependent variables. For example, the percentage of the student body that is black (a socioeconomic variable) and the percentage of the faculty that is black (a school variable) are significantly correlated. Similarly, both are significantly correlated with the state assessment scores and might be used as predictors of those scores in different analyses. When combined in one analysis, they probably would explain little more of the variance in the state assessment scores than they had explained separately.

To summarize, then, the following sequence of events may be occurring: (1) some of the socioeconomic and the school variables in the multiple regression model are correlated with one another; (2) the full set of socioeconomic and the full set of school variables can separately explain a significant amount of the variance in the dependent variables; and (3) when combined in one set of predictors, the two sets explain common or overlapping variance, plus some additional variance unique to each set of predictors.

Further examination of Table 17 indicates that the reduced six variable model including both socioeconomic and school variables, is as good a predictor of state assessment scores as the full fifteen variable model including both sets of variables. As noted above, school variables alone in the reduced model do not explain as much variance as school variables alone do in the full model. This is especially true when reading is the dependent variable, but untrue when mathematics is the dependent variable.

To further explore the relative contributions of socioeconomic and school variables to performance on state assessment tests, a series of stepwise regression analyses were performed. These analyses determine how much additional variance school variables can explain beyond that explained by

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[2] The statistical procedure used to generate this best six variable model was PROC STEPWISE/MAXR from the Statistical Analysis System (SAS).

socioeconomic variables. It is assumed in these stepwise regression models that the socioeconomic effects on student performance precede the school effects; therefore, the variance in student performance explained by school

effects can be determined only after the variance explained by socioeconomic variables has been established. This approach to determining the effect of school variables on student performance is conservative, since the variance commonly explained by both the socioeconomic and the school variables will be attributed to the socioeconomic variables which enter the model first.

The stepwise regressions for the full and reduced models reveal consistent findings, as can be seen in Table 18. For the full model, school variables explain between three and eleven percent of the variance beyond that explained by socioeconomic variables across test areas. For the reduced model, school variables explain between three and twelve percent of the variance beyond that explained by socioeconomic variables across test areas. The largest additional variance explained is in mathematics (11-12, percent depending on the model); the next largest, in writing (7-8, percent depending on the model); and the smallest, in reading (3 percent).

These results are consistent with literature cited in Chapter One that indicates that school variables account for a modest amount of the overall variance in student performance. There are two interesting points about the results of the stepwise regression: (1) the results are very consistent across the two models, leading the investigators to greater confidence in the results; (2) the amount of additional variance explained in student performance varies consistently by subject area.

One of the major purposes of this analysis of secondary data was to determine those school variables which have the greatest effect on student performance. Correlation coefficients reported in Appendix Two indicate that several school variables are significantly correlated with state assessment tests. These include the percentage of whites on the faculty, mean faculty score on the NTE Commons examination, the mean faculty score on the NTE Area examination, the mean highest degree attained by the faculty, the mean absences of the faculty, the student-teacher ratio, and the mean prestige of the universities from which the faculties graduated. These correlations do not, of course, imply causation, since any number of other factors could have produced both the variations in the particular school variable and the assessment test score.

Table 19 lists the school variables which were included in the final six variable models. It should be noted that the stepwise regression procedure used to generate these best six variable models allow variables to enter and leave the models solely on the basis of maximizing variance explained. For variables which are highly correlated, as many of the school variables are, this procedure allows for great interchangeability. Nevertheless, the variables retained most frequently in the six variable models for the third grade only were number of students in school (on all three dependent variables), mean faculty score on NTE Commons exam (on two dependent variables), and mean faculty score on NTE Area exam (on two dependent variables).

III. Additional Regression Models

A. Introduction

Data were also available from schools which had seventh and tenth grade classes which took state assessment tests. Two additional sets of regression analyses were run using data from these schools: (1) multiple and stepwise regressions for schools with seventh and tenth grade classes; and (2) multiple and stepwise regressions for schools from all three grade levels (third, seventh and tenth). These additional analyses were run for the following reasons: (1) to corroborate the results of the third grade analysis in terms of the relative variance explained by socioeconomic and school variables; (2) to determine if a different pattern of results obtains for secondary schools as opposed to elementary schools; and (3) in the case of the analyses involving all three grades, to increase the number of observations in the model.

It should be stressed that the analyses reported in this section are exploratory and should be interpreted carefully because of potential problems in aggregating data across grade levels. There are two basic problems with aggregation: (1) the dependent variables (scores on state assessment tests) may consistently vary across grades due to the differential difficulty of the tests; (2) spurious relationships between independent variables, which may vary from grade to grade, and dependent variables, which also vary from grade to grade, may be encountered. With regard to the first point, one can never be sure whether differences in state assessment scores across grades are a function of different abilities of the students at different grade levels, different effectiveness of the teachers in teaching the required material, or different difficulty of the test items. With regard to the second point, a systematic change in an independent variable across grades coupled with a systematic change in scores on state assessment tests may result in spurious relationships. The investigators attempted to reduce the possibility of such spurious relationships by eliminating certain independent variables from aggregate analyses, but it is unclear how successful this elimination procedure was.

The models for all three grades together and for grades seven and ten were determined using the same strategy employed for the third grade. Appendices 4 and 5 contain the full correlation matrix and matrix of assessment scores by predictor variables for all three grades together. Appendices 6 and 7 contain the same matrices for grades seven and ten. Examination of these correlation matrices resulted in a sixteen variable full model for all three grades combined and a seventeen variable full model for grades seven and ten.

The sixteen variables for the full model for all three grades combined are found in Table 20. Similarly, the seventeen variables for the full model for grades seven and ten are found in Table 21. The reduced six variable models for both sets of analyses were determined using the stepwise procedure described in the previous section. The reduced models are those six variable models which explain the greatest proportion of the variance in the dependent variables.

B. Results

1. Multiple Regression Analyses

Table 22 summarizes the multiple regression analyses for all three grades combined, while Table 23 summarizes this analyses for the seventh and tenth grades. All of the models are statistically significant. Again, the reduced six variable models with both sets of variables entered do as good a job of explaining variance as the full sixteen or seventeen variable models do. Moreover, the models with both sets of variables (socioeconomic and school) explain only slightly more variance than that explained by the socioeconomic variables alone, suggesting that socioeconomic and school variables are explaining overlapping variance in the dependent variables.

There are, however, two major differences between the third grade analysis and these analyses:

(1) In general, more variance is accounted for by the combined three grades analyses and the analyses for seventh and tenth grades than by the analyses for third grade only. The models for the seventh and tenth grades explain the most variance.

(2) School variables in the reduced models for the combined three grades and the seventh and tenth grades explain more variances than that explained by school variables in the reduced models for the third grades. The decrease in variance explained by school variables from the full to the reduced models is much less for these analyses than, those for the third grade only.

Again, school variables retained in the reduced six variable models vary from model to model. Altogether seven different school variables showed up in the analyses for all three grades, and seven different variables again showed up in the analyses for seventh and tenth grades. This once more demonstrates the interchangeability of the school variables as predictors of student assessment scores. The only variables to show up as predictors in the six variable models for two tests were: (1) the mean faculty score on the NTE Area exam and the mean school experience for the analyses involving all three grades; and (2) the number of students in the school and for the seventh and tenth grades, average prestige of universities from which faculties graduated.

2. Stepwise Regression Analyses

Stepwise regressions were again performed to determine how much additional variance school variables can explain beyond that explained by socioeconomic variables. Table 24 presents the summary of the stepwise regression analyses for all three grades together, while Table 25 summarizes these analyses for grades seven and ten. For all three grades combined, the results for the full and reduced models are virtually identical with school variables explaining between 5 and 17 percent of the variance beyond that explained by socioeconomic variables across test areas. The largest additional variance explained is in writing (17 percent); the next largest in mathematics (10-11 percent depending on the model); and the smallest in reading (5-6 percent, depending on the model).

The stepwise regression models for the seventh and tenth grades present very similar results. Again, the results for the full and reduced models are very similar with school variables explaining between 8 and 23 percent of the variance beyond that explained by socioeconomic variables across test areas. The largest additional variance explained again is in writing (20-23 percent depending on the model); the next largest in mathematics (15-18 percent depending on the model); and the smallest in reading (8 percent).

Two points made earlier with regard to the stepwise regression analyses for third grade are also true for these additional models: (1) the results are very consistent across the reduced and full models, leading the investigators to greater confidence in the results; (2) the amount of additional variance explained in student performance varies consistently by subject area.

There are, however, differences between the results of these analyses and those presented earlier for the third grade: (1) school variables explain more variance beyond that explained by socioeconomic variables in these models than in the third grade models; (2) school variables explain the most variance beyond that explained by socioeconomic variables on the writing test for these models, as opposed to the mathematics test for the third grade models.

IV. Determination of Important School Variable Dimensions Using Factor Analysis

A. Introduction

As noted in the introduction to this chapter, the secondary analysis section had as its major purposes to: (1) determine how much variance in state assessment scores can be explained by secondary socioeconomic and school variables; (2) compare the relative strength of these socioeconomic and school variables in explaining variance in state assessment tests; and (3) determine which school variables are the most important in explaining state assessment scores. The regression analyses described above accomplished purposes the first and second, but intercorrelations among the school variables made it very difficult to accomplish the third purpose. The interchangeability of the school variables in explaining variance in student performance makes it very difficult to state emphatically which secondary school variables are the most important in explaining that variance.

Having several highly intercorrelated variables may lead to faulty conclusions about the importance of any single variable. There is, however, a statistical procedure known as factor analysis, which enables one to reduce a large number of intercorrelated variables into a smaller set of factors or dimensions that account for the observed interrelations among the variables. Factor analysis is a means whereby regularity and order in a complex set of intercorrelated variables can be discerned.

Factor analysis will be used in the present study to determine a smaller set of dimensions that can account for the intercorrelations that exist among the socioeconomic and school variables. Particular attention will be paid to those dimensions which emerge from the intercorrelated school variables. It has been determined through the regression analyses that school variables can account for a modest, consistent variance in assessment scores above that accounted for by socioeconomic variables. Factor analysis will now be used to determine the important, underlying dimensions of these intercorrelated school variables.

B. Factor Analysis Considering Both Socioeconomic and School Variables

Re-examining the complex correlation matrix among the thirty-two socioeconomic and school variables contained in Appendix Two underscores the potential value in finding a set of dimensions that accounts for the intercorrelations among the variables. Since the variables can logically be divided into sets of socioeconomic and school variables, it might be expected that a factor analysis would result in: (1) one or several dimensions emerging from the socioeconomic variables; and (2) one or several dimensions emerging from the school variables. However, the correlations that exist between certain school and socioeconomic variables may lead to dimensions that include variables from both sets.

The first factor analysis reported here was performed on the sixteen variables retained in the full regression model for all three grades combined (see Table 20). This set of variables contained five socioeconomic and eleven school variables. Table 26 contains the results of a factor analysis[3] of these data. The numbers in this Table are called factor loadings. They measure which variables are involved in which factor pattern and to what degree. They can be interpreted like correlation coefficients: they range from -1 to +1, and the larger their absolute value, the more they are involved in the factor pattern.

Four factor patterns emerge from this factor analysis. It should be noted that these four factors are uncorrelated, thus eliminating the correlational biases among variables found in the regression analyses. Loadings within each factor pattern larger than .60 have been placed in parentheses; the variables associated with these high loadings are the ones most involved in the factor pattern.

The four factor patterns may be described as follows:

(1) Factor one has high loadings on all the socioeconomic variables (the father's education, the number of siblings, the percentage of mothers who are not professionals, the percentage of fathers who are professionals, percentage of student body that is black) plus one school variable (the percentage of faculty that is white).

(2) Factor two has high loadings on faculty variables (mean faculty salary, mean faculty experience in school, mean highest degree attained by faculty) plus other school variables (the number of students in the school and the student-teacher ratio). The correlation coefficients among these variables indicate that increases

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[3] The factor analyses reported here utilize the principal axis method with varimax rotation.

in school size and student-teacher ratio are associated with increases in faculty salary, school experience and highest degree attained.

(3) Factor three has high loadings in variables associated with teacher preparation (mean faculty score on NTE Commons examination; mean faculty score on NTE Area examination; mean prestige of universities from which faculty graduated).

(4) Factor four has a high loading on only one variable, the principal's percentile score on the NTE administration test.

This factor analysis verifies that school and socioeconomic factor patterns are distinguishable. The socioeconomic variables load on one dimension; the school variables load on three dimensions. There is slight overlap between the two sets of variables, in that one school variable, percentage of faculty which is black, loads on the socioeconomic dimension.

C. Factor Analyses Considering School Variables Only

Further factor analyses of the school variables without the socioeconomic variables will now be discussed. The investigators ran three separate factor analyses on the school variables in the full regression models for: (1) third grade schools only (see Table 27); (2) all three grades combined (see Table 28); and (3) seventh and tenth grades only (see Table 29). These analyses were undertaken to determine if: (1) the same factor patterns would emerge across different grade levels; and (2) the same factor patterns would emerge if socioeconomic variables were deleted from the analyses.

These three separate factor analyses yield very similar results:

(1) All three factor analyses yield three factor patterns.

(2) The three factor patterns are similar, although the order of the factors change in one case, and some of the variables load differently across grade levels.

(3) Factor one on Table 27, factor two on Table 28, and factor two on Table 29 have high loadings on the same variables mean faculty score on the NTE Commons examination, and the mean faculty score on the NTE Area examination; mean prestige of universities from which faculties graduated; and the percentage of the faculty that is white. When socioeconomic variables were deleted from the analysis, the percentage of the faculty that is white loaded highly on this factor, which appears to be associated with teacher preparation.

(4) Factor two on Table 27, factor one on Table 28, and factor one on Table 29 have high loadings on variables associated with teacher experience. Several other school variables show up on each separate analysis. For grade three, the three highest factor loadings are for the mean highest degree attained by the faculty, the mean total experience of the faculty and the mean number of faculty absences.

(5) Factor three on all three analyses has a high loading on principal percentile score on the NTE administration test. Few other variables load highly on this dimension. This factor appears less important than the other two factors, based on the amount of variation in the data described by the factor in the unrotated factor matrix.

These factor analyses indicate that three dimensions may describe the set of intercorrelated school variables: (1) a faculty preparation factor, which is composed of the mean faculty scores on the NTE examinations and the type of university the faculty members attended; (2) a faculty experience factor, which in some analyses also includes other school variables such as school size and student teacher ratio; and (3) a third factor which is composed almost exclusively of the principal's percentile score on the NTE administration test.

One final regression analysis will be presented in this section. In this analysis three factor scores, derived from the three factor patterns found among the school variables, will be entered into a regression model predicting state assessment scores on the third grade level. This analysis will allow the comparison of the relative strength of three uncorrelated school variables to student performance. Table 30 compares the standardized beta weights of the three factor scores across the three tests. Factors one and two have large beta weights compared to factor three, which is quite small. Of the three factors that emerge from the factor analysis, the first two (the faculty preparation variable and the faculty experience variable) are much more likely to be related to student achievement than the third factor, which is insignificantly related.

CHAPTER FOUR
PRETEST OF PRIMARY DATA METHODS

I. Introduction

While the secondary analyses examined many of the factors that explain performance on the state assessment tests, the investigators decided to further explore variations in the educational environments that exist within schools with third grade classrooms in Caddo Parish. The reader should recall that the secondary data, which included socioeconomic and structured school characteristics, explained between 46 and 64 percent of the variance in state assessment scores for schools with third grades (see Table 17). Evidently, other variables are accounting for further variation in scores among schools. The investigators decided to explore differences that may exist in the school's educational climate, differences which were not measured by the structured school characteristics. These school climate variables, which were discussed in Chapter One, include the degree of classroom structure, the teachers' expectations for classroom performance, and the students' perceptions of their classroom performance.

In order to explore these educational climate variables, it was decided to administer questionnaires to students in schools that did better or worse than expected on state assessment tests. The investigators hypothesized that these schools may differ with respect to of the educational climates that are provided for their students. Included in this chapter is a discussion of the pilot testing and the revision of these questionnaires. Also included is a discussion of the pilot testing of a time on task methodology, which are expected to be utilized more extensively in the next year of the study.

II. Questionnaire Development

As was noted above, one of the important tasks of the LSES is the development of a measure of school educational climate. Toward this end, a set of questionnaires developed by Brookover et al. (1979) was adopted for use in Louisiana's schools. This set includes instruments for principals, teachers, and students, and contains a number of items which Brookover combined into subscales examining such areas as classroom characteristics, students' sense of academic futility, students' perceptions of teacher norms, and students' perceived evaluations in the present and for the future. Teacher and principal instruments were pretested, and few problems were found with them. Students' questionnaires underwent more extensive examination, since Brookover found these to produce the most fruitful items. Before going into the field, the team expressed concerns over the wording of some of the questions and the number of response possibilities for the questions. This was a special concern because the Brookover questionnaire was developed for use with fourth graders, and its present application is to the third grade. To address these concerns, a revised form of the Brookover instrument was developed, in which the number of response options was reduced on approximately half of the items, and the wording of any question found particularly confusing was altered.

Both the original and the revised forms of the questionnaire were pretested in third grade classes in two selected schools of Iberia Parish. The original form was given in one class in each school, and the revised was offered to a total of three classes. The researchers administered the questionnaire to the class as a whole (while the teacher, absent from the room, completed the teacher instrument), reading each question to the class and pausing to answer any questions the students had. In addition, one researcher conducted an in-depth discussion with five students, (selected by their teacher to represent a wide range of abilities), in order to more completely explore the students' reactions and possible confusions over the instrument. Several important things were learned from this. Contrary to expectations, the children did not have difficulty with the maximum number of response options. In conversation they expressed a preference for the wider number of options. When the response patterns were examined, it was discovered that all possibilities were utilized for all but six of the items.

Given an open-ended format, students had difficulty providing sufficient detail about their fathers' occupations and were often unable to spell the words. Utilizing an open-ended question required that a great deal of time be by the researcher and that time away from the group as a whole greatly affected the attentiveness of the rest of the class. Children were confused by the question "How old were you on your last birthday?" A typical response was "This birthday I'm eight so last birthday I was seven." The major difficulty with the instrument, however, was its length. Although the revised form with the fewer responses needed slightly less time, both forms required almost the full hour allotted for the administration. One researcher, encountering greater difficulties by the students with the questions, was unable to complete the instrument. In all cases, with both forms, researchers found that fatigue occurred by about the fortieth question, and, although students completed the instrument, it became increasingly difficult to maintain their attention.

In response to experiences with both forms of the questionnaire, several changes were made in the instrument. First, it was decided to obtain age with the simple question "How old are you?" Second, each of the now items provides the maximum number of response options as presented by Brookover. Finally, the instrument was shortened considerably from 68 items in the original to 48 items in the revised form.

Decisions on deleting items from the instrument were made very carefully. As a first step, frequency distributions and variances were obtained for all item responses. At the same time, items were combined into the eight subscales developed by Brookover, which are: classroom characteristics, student sense of futility, student future evaluations and expectations, student perceived present evaluations and expectations, student perception of teacher push and teacher norms, student academic norms, student self-concept, and student self-reliance. A ninth subscale was developed by the researchers, which consists of items from the Brookover questionnaire not included in the other scales. This was titled student-teacher commitment to learning. In considering subscales, if two items were present which asked similar information and elicited similar responses, one of the items was deleted. Care was taken to retain the one with the clearest wording in these cases. Then item variance was considered. Those items with very low variance, where only one response was obtained, were also dropped from the instrument. Items which produced bimodal distributions were also deleted, particularly if another item in the subscale better discriminated among the respondents. In short, the emphasis was to produce a briefer instrument, which both retained the integrity of the subscales and best produced a range of responses. Appendices Eight, Nine, and Ten contain the final student, teacher and principal questionnaires which were administered in Caddo Parish.

III. Development of Time on Task Methodology

The investigators were interested in developing a methodology that would measure the amount of time students are engaged in academic tasks during a normal school day. For the pilot year of the study, it was decided to limit the time on task activities to a pretest, since this methodology required more time and personnel than currently available. The investigators hope to expand this aspect of the LSES considerably next year.

One potentially fruitful way of exploring time on task is found in the measure of academic efficiency developed by R. J. Marzano and C. L. Hutchins (1981) at the Mid-continent Regional Education Laboratory. This method allows an assessment of the proportion of the school day potentially available for academic pursuits. In addition, this procedure allows an assessment of the quality of that time in terms of student attentiveness. It permits the computation of "engagement rate," i.e., the average number of students paying attention during the instructional period.

To use the Marzano-Hutchins procedure, the researchers collect school level data, such as the total enrollment, the average number absent, and the amount of time scheduled for out of classroom activities. In addition to this, observations are made in the classrooms to examine usage of time usage within the class period and the attentiveness of the students during instruction.

Since the Marzano-Hutchins methodology was developed primarily as a diagnostic tool for teacher improvement and has only recently been applied as a research tool, some modifications were required. A telephone conversation with the authors of the procedure was held March 4, 1982, to discuss tailoring the method to Louisiana's specific needs and considerations. Several alterations were made. Initially, Marzano and Hutchins spent a great deal of time in each classroom and often observed six pre-selected students, three high achievers and three low achievers. The investigators believe that the most effective unit for observation in our study is the class, which means the observation of all the students present. Marzano and Hutchins used one observer per class. Since the number of students has been expanded for the LSES, the number of observers has also been increased to two per classroom. Since what is sought is a measure of time usage rather than an assessment of teacher effectiveness, a two hour period of observation was considered to be sufficient. To allow for comparisons between classes and between schools, a time sampling method was developed in which observations of the entire class are made at fifteen second intervals. Observers record in what the class is engaged at that time and, if it is instructional time, how many students are performing that task.

Marzano and Hutchins developed a large number of categories for time usage in order to show their teachers exactly how time was spent in the classroom. However, fewer categories will meet the needs of the LSES: the categories used here are time spent in instructional activities and three types of time usage in noninstructional activities (managerial activities, discipline, and all other activities). A coding sheet (see Appendix Eleven), was developed for recording the number of students present and the type of activity observed at each interval.

This methodology was pretested in one of the same schools in Iberia Parish in which the questionnaire was pretested. Again, the pretest yielded much information. The investigators were fortunate to have selected two classrooms with very different styles of instruction. One pair of observers went into a very traditional, structured classroom in which the teacher worked with the class as a whole for the entire observation period. In this situation, the observation was straightforward. It was not a very difficult matter to glance around the class and count the number of students who were not paying attention at a given instance. It became easier as the team gained experience. Categorizing time usage in the class period produced a few discrepancies between the two researchers, but these were resolved in a post-observation discussion. Calculations of engagement rates by the two observers compared favorably at 92.9 percent and 95.4 percent.

Two problems did develop. First, the teacher, in spite of despite instructions to conduct on her class as if she were not being observed, seemed to use the opportunity display her students' capabilities. Several times, she came and asked one of the team if there were anything else she could have the class do. Consequently, the need for as "normal" a situation as possible will have to be more strongly stressed in future observations. Second, at least in the school in question, there does not appear to be a two hour uninterrupted block of time available. Therefore, a decision will need to be made as to whether to limit the observation period to one bordered by non-classroom activities, such as recess and lunch, or to employ a discontinuous two hour period of observation.

In the other classroom in which the methodology was pretested additional problems were encountered. This was a less structured classroom in which the students were separated into groups, the membership of which sometimes changed as the class period continued. Because the students were separated into groups with different activities, it became impossible for the observers to keep track of each individual. In addition, since the teacher went from group to group, part of the class time was engaged in managerial activities and some in instructional activities at any given observation time. At present, the team is exploring alternative methods for use in unstructured classrooms.[4]

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[4] One technique used in unstructured classrooms is to make the observation intervals much longer. For example, Stallings and Kaskowitz (1974) used observation intervals of every 15 minutes noting what each pupil is doing within his/her own group activity.

CHAPTER FIVE
ANALYSIS OF QUESTIONNAIRE DATA

I. Introduction

Once the questionnaires were pilot tested and revised, the investigators needed to locate schools in which to administer them. As noted in Chapter Four, it was decided to administer questionnaires to students in schools that did better or worse than expected on state assessment tests. Regression analyses were used to select these schools.

Specifically, the reduced six variable model for schools with third grade classrooms discussed in Chapter Three was used to predict how well these schools should perform on state assessment tests. This procedure is very similar to that used by the Louisiana State Department of Education to predict how well districts should perform on state assessment tests.[5]

The regression models allow the investigators to predict how well each school should perform based on the socioeconomic characteristics of students and the structured characteristics of the schools. These predicted scores were then compared with the schools' actual scores, and a measure of the deviation from the predicted score to the actual score was made. Sets of schools which deviated above and below predicted scores were determined.

Five schools were selected from each of these two categories for inclusion in the study of educational climate. Thus, there were five schools which scored better than predicted, and five schools which scored worse than predicted in the study population. The five schools which scored better than predicted have scores which are higher over all the three assessment tests than the five schools which scored lower than predicted. These two sets of schools will be identified to as those actually scoring high and those actually scoring low.

Dividing schools into groups on the basis of their actual scores enables one to compare differences associated with actual performance on state assessment tests. The investigators also divided the schools into two groups on the basis of predicted scores in order to compare differences in school climates, which may result from socioeconomic and structured school characteristics.

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[5] For a further discussion of this procedure, see Technical Report, Louisiana State Assessment Program, 1980-81, available through the Louisiana Department of Education.

The following figure describes the resultant research design:

		Actual Scores	
		High	Low
Predicted Scores	High		
	Low		

Predicted and actual state assessment scores for the ten selected schools are presented in Table 31.

This research design will be analyzed using a statistical technique known as analysis of variance. This statistical technique allows one to study the separate and joint effects of more than one independent variable simultaneously. In this research design, there are two independent variables: whether the school actually scored high or low and whether the school was predicted to score high or low. There is also an interaction between the two variables. This interaction may be perceived of as the joint effect of the two independent variables separate from their individual effects. Analysis of variance will allow one to study all three effects: that for each independent variable separately, and that for their joint effect, at the same time.

II. Significant Predicted Score Main Effects

A. Students' Perceptions of Educational Expectations and Personal Control

Predicted score accounts for significant differences in eleven of the variables. The overall multivariate analysis, which determines if the effect is significant across all of the dependent variables in the analysis, was highly significant [F (41,521)=5.75, $p < .0001$]. The significant predicted score main effects are presented in Table 33. These variables can be conceptually divided into three groups which will be considered separately.

The first group has been termed "Students' perceptions of educational expectations and personal control." Variables placed in this group assess the students' perceptions of parents' and friends' expectations for them, and also the students' assessment of the control they have over their educational outcomes. Differences in this set of variables may be the result of the differences in socioeconomic characteristics between those students from schools predicted to score well (the high group) and those predicted to score poorly (the low group). Table 32 provides a comparison of these groups of students and illustrates that students from schools predicted to score well tend to have better educated fathers, more fathers who are professionals, and are less likely to be black than those from schools predicted to do poorly.

Given the socioeconomic differences, it is not surprising that students in the higher group perceive that their parents expect them to go farther in school than those students from schools in the lower category. The mean for the former group is 4.66, while for the latter it is 4.28, with 4.00 being "go to college for a while." As might be expected, the children's perceptions of their peers' expectations closely match that of their parents. The mean expectation for the higher group is 4.39 and for the lower group it is 4.17, with the scale values identical to the previous. It can be noted here that the means in all the preceding instances are quite high, particularly when compared to the educational attainment of the students' parents, whose mean educational level is slightly above high school attainment for the higher group and slightly below high school completion for the lower. It should also be noted that both groups of students perceive higher expectations from their parents than from their friends. This may be a function of the parents' expecting their children to go as far in school as they possibly can.

Related to these expectation variables is the issue of control over the educational process and its outcomes. It is logical to assume that children from more "advantaged" family situations with more highly educated parents would feel more control over their situation and ascribe more responsibility to themselves than to chance for their school success. This appears to be the case here. Students in schools predicted to do poorly respond more often that "You have to be lucky to get good grades in school" than those from schools predicted to do well. In short, those students in schools predicted to do well tend not only to perceive higher expectations from their parents and peers, but also to feel more responsible for their own school performance.

B. Students' Perceptions of Teachers and of Class Structure

Items included in this group explore the childrens' perceptions of the teachers' attitudes and expectations, both for the present and the future. These items offer a particularly interesting contrast to those of the first set. Students from the lower schools perceive a stronger push from their teachers than do students from the higher schools. They indicate that they feel their teachers have high expectations for them on the question, "Does your teacher think you could finish college?" Here those students predicted to do poorly respond more positively than do students from schools predicted to do well, in spite of the lower educational level of the parents. While this appears contradictory, there is a plausible explanation. It may be that these students' teachers are consciously, and more verbally, encouraging them to achieve at a higher level than might be expected. Teachers of the other group may not feel the need to verbalize so emphatically their expectations.

Additional evidence for this position is provided by the perceptions of the lower group children that their teachers are more likely to tell them to try to get better grades than their classmates and that their teachers do not care how hard they work as long as they pass. It seems that there is a stronger emphasis on making passing grades in these schools than in the ones predicted to do well. Data from questionnaires administered to teachers lend support to this reasoning. Teachers from schools predicted to do poorly indicated that they felt it was fair to insist on a higher level of achievement from their students than they presently seem capable of achieving

[$F(3,21)=10.19$, $p < .01$].[6] These teachers seem more compelled to push their students than teachers from schools predicted to score higher.

Finally, students from schools predicted to do poorly also reported that they have a more structured classroom environment than those from schools predicted to do well. Specifically, they perceive that they have to sit in the same seats, next to the same students more often than do students who score more highly perceive this. If they are correct, it may be that their teachers feel that a more structured classroom environment will lead to higher student achievement.

C. Students' Perceptions of Other Students and Self

Items in this category tap the children's perceptions of their own abilities and motivations and those of their classmates. It differs from the above two sets, since it deals neither with expectations for the future nor with classroom management. Items here concern the students' assessments of the present. When asked "If students in this school did not have their work graded by teachers, how many would study hard?" students from schools predicted to score poorly responded that more of them would continue to study than did students from schools predicted to score well. This fits into the overall pattern discussed in the previous section. Those children whose teachers have been encouraging good performance have likely internalized their teachers' expectations.

Despite their teachers' encouragement, children in the lower group report that more students tease those who get good grades than do students in the higher group. Additionally, students in the lower group assert that fewer of them care if they get bad grades. This provides a picture of students who, although trying to fulfill their teachers' expectations, feel an inability to earn the tangible symbols of academic success--good grades. This dichotomy between motivation and aspiration is not a unique finding. Of particular relevance is a recent article by Howell and Freese (1981), in which they state that"...educational plans do not exclusively or even primarily reflect motivation toward academic success." (p. 232) While academic plans are conceived of as "behavioral intentions," motivations are defined as "the level of effort one is willing to, or actually does, expend toward academic tasks..." (p. 221). This distinction is one which can be found in the present study. The persistent encouragement to strive given to the students in the lower group is having a very definite effect on their motivation. This is, however, separate from their expectations of educational attainment and performance which are strongly affected by socioeconomic factors and the expectations of their parents and peers.

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[6] It was decided to limit discussion of the results of the teacher questionnaire data in this report, because: (1) the number of teachers interviewed in study was quite small (N=25); and (2) the emphasis in this report was students' perceptions. The report for the next year of the study will emphasize teachers' responses more heavily.

III. Significant Actual Score Main Effects

A. Students' Perceptions of Educational Expectations and Personal Control

Actual score main effects, it should be remembered, are those related to the classification of schools as scoring higher or lower on the third grade Louisiana State Assessment Tests. For this variable the overall multivariate test was also significant [$F(41,521)=2.47$, $p < .0001$]. The significant actual score main effects are presented in Table 34. As in the case of predicted score effects, the eleven variables having significant actual score main effects will be discussed in three categories. The first category to be discussed includes not only future expectations for academic attainment, but also the students' perceived control over their success or failure in life.

Children from schools scoring more highly reported a higher educational expectation. The mean for this group is 4.65, while the mean for the lower group is 4.43, with 4.00 "being attend college for a while." These increased expectations are likely the result of the children's relatively greater success in the academic world. This success is also probably causally related to the groups who score more highly, perceiving themselves as having greater control over their educational and life situations. When asked to respond to the statement, "People like me will not have much of a chance to do what we want to in life", students from schools who did well were much more likely to disagree than were students from schools which scored poorly. The same pattern emerged with the item "People like me will never do well in school even though we try hard." Children from the poor performance schools apparently feel unable to succeed in these situations because of factors at least partially outside themselves, and they translate these feelings of helplessness into decreased expectations.
The argument that these feelings are directly the result of the socioeconomic characteristics of these children is not borne out. An examination of Table 32 reveals that when students actually scoring more highly are compared to those actually scoring less highly, there is really little difference in the socioeconomic variables. The differences in the variables in this set can therefore be ascribed to school climate variations.

B. Students' Perceptions of Teacher and of Class Structure

Students from schools which performed poorly reported that their teachers are more likely to encourage them to try for better grades than do students from schools which did well. This is likely due to teachers in the better performing schools not feeling the need to offer encouragement to their students, since they are performing well to begin with. Teachers from the lower schools are more likely to try to raise the performance level of their students, and thus are more verbal in pushing their children to achieve. In terms of class structure, students from the lower group performing report that they are required to keep the same seat in class and that their teacher is more likely to work with the class as a whole. Again, this may be a situation in which the teacher believes that a more structured classroom environment will lead to better performance by his/her students.

C. Students' Perceptions of Other Students and Self

As might be expected, children from the lower scoring schools respond less positively to the question, "Do you think you can do school work better, the same, or poorer than your friends?" than do the children whose school scores are higher. If items concerning the students in the class are considered, the same sort of answers are observed. Students from the higher scoring schools report that students learn a lot more in their school than in others, that they enjoy reading, and read even when they are not required to do so, and that they think it is very important to do well in school work more often than students from the lower scoring schools. These are all responses which might be anticipated, given their comparatively better performance on the state assessment tests. However, one final item in this category deviates from the pattern. Students from the schools which score poorly answered that more of them worked hard "...to get a better grade on the weekly tests than their friends do." It may be that this is an acknowledgement of the greater effort that these students must expend to compete, or it may be that the encouragement that teachers are apparently giving to the lower group of students is manifesting itself in an increased effort by their students. It is interesting to note that although the lower students report working hard, they also report school grades as comparatively less important to them. It is likely that since academic achievement is not often attainable, its importance is downplayed and other aspects of life are used in self-concept formation.

IV. Significant Interaction Effects

In examining the significant effects in an analysis of variance, it is misleading to look only at the main effects if interaction effects are also present. Such is the case here. A total of fourteen variables showed significant actual score by predicted score interaction effects. The multivariate test was again highly significant [$\underline{F}(41,521)=5.29$, $\underline{p} < .0001$]. These significant interaction effects are found in Table 35. As with the previously discussed main effects, the items will be considered in three groups. And, as with the main effects, very interesting and important patterns emerge from a consideration of the results.

A. Students' Perceptions of Educational Expectation and Personal Control

There are significant interaction effects on three items in this set. All three items have to do with students' sense of personal control in school and in life. An examination of the means in each of the four possible combinations of the actual and predicted groupings of these items (presented in Table 36, 37, & 38) reveals that those students who perform as predicted (i.e., who are predicted to do well and do so and those who are predicted to do poorly and do so) are more likely to disagree with the statements. Those students whose performance did not match the prediction are more likely to agree with the statements.

Why do students from schools whose performance is consistent with expectations have similar responses? Additionally, why do students from schools whose performance is inconsistent with expectations have similar responses?

First, considering the schools with consistent findings, the following may be happening:

(1) In general, students in schools which perform at the expected level may be more likely to feel personal control over their performance.

(2) In the case of schools which were predicted to do well, and did well, these students come from higher socioeconomic backgrounds with higher expectations, and their performance reflects their accomplishing what was expected.

(3) In the case of schools which were predicted to do poorly, and did poorly, these students come from lower socioeconomic backgrounds and lower expectations, and their poorer performance does not necessarily reflect on their self-concept, which may be measured in other than educational terms.

Considering schools with inconsistent findings, the following may be happening:

(1) In general, students in schools which perform inconsistently with expectations may be more likely to feel that factors beyond their control explain their performance.

(2) In the case of schools which were predicted to do well, and did poorly, these students come from higher socioeconomic backgrounds with higher expectations and they may need to assign blame for their poor performance elsewhere.

(3) In the case of schools which were predicted to do poorly, and did well, teachers may be constantly encouraging students from lower socioeconomic backgrounds to perform better, and these students may at some point relinquish personal responsibility for that performance.

B. Students' Perceptions of Teacher and of Class Structure

Eight variables in this category showed significant actual score by predicted score interaction effects. The first four (presented in Tables 39 through 42) have identical patterns. In each case, the two groups of students who score as predicted respond similarly to each other, and the two groups whose predicted and actual score are contradictory respond in similar ways to each other. Furthermore, in each case, those with consistent patterns provide a higher mean response than those with inconsistent patterns.

This pattern of results is, of course, identical to that found in the previous section and lends itself to a consistent interpretation. Students in the inconsistent schools perceive their teachers to be more likely to tell them to do extra work than students in the consistent schools (see Table 40). Similarly, students in the inconsistent schools perceive their teachers to be more likely to help students who do badly than do students in the consistent schools (see Table 41). This motivational behavior on the part of the teachers in the inconsistent schools may explain why the students feel less control of their academic environment.

Further evidence for this motivational behavior on the part of teachers in the inconsistent schools can be found in Table 39. The average response for students in the inconsistent schools is that their teachers perceive them to be better than most students their age, while students in the consistent schools report more often that their teachers perceive them to be equal to students their age. Thus, students in the inconsistent schools perceive their teachers as praising them more than students from the consistent schools. Finally, this same group says that they are more likely than the consistent group to work as a group, all on the same lesson (see Table 42).

What does all this tell us? First, the students in the inconsistent groups perceive a stronger involvement with their teacher. He/She is, in his/her attempt to push his/her students on to better achievement, more likely to offer help in a number of ways, including the offer of extra work. This extra effort, and the verbal praise which likely accompanies it, translates into a belief by the students that they are, or can be, performing better than many of their peers. The last of these items, the class structure variable, simply indicates that teachers of these groups tend to use a more structured approach than teachers of the other groups, perhaps in the belief that the additional structure will be conducive to increased performance by the students.

The final group of significant interactions in this set reflects a slightly different pattern of results (see Tables 43-46). In these interactions, the students in schools predicted to do well, and actually doing well, respond differently from those in the other three groups. The first item asks the students to respond to "How many teachers in this school tell students to try to get better grades than their classmates?" On this item, the mean response of those who are predicted to do well, and do so, is much lower than the means for the other three groups, which are remarkably similar. This indicates that the teachers of the high performing, consistent group seem to not feel the need to encourage better grades, since the students perform well without the encouragement. Those students who feel the most pressure from their teachers are, as has been seen before, the group who performs well, despite a prediction to the contrary. It is perhaps this attention from the teacher which accounts for a least some of their performance. The means for the four groups of students for this item are presented in Table 43. The next two questions (presented in Tables 44 and 45) both tap the structured nature of the classroom. In both cases, those students from the high consistent group report a less structured situation than do the other groups who report very similar perceptions of their classes. Thus, those students who are expected to do well, and who do well, state that they are less likely to be taught as one large group, and they are less likely to be required to sit in the same seats without changing. This probably indicates that their teachers feel the freedom to offer them a less structured situation in their classes.

The final item in this category requires the students to respond to "Of the teachers that you know in this school, how many don't care how hard the student works, as long as he passes?" Here the largest difference is between the groups who perform well, despite different predicted outcomes. Students who are predicted to do well, and who, in fact, do well, feel the least that this is the case, while those who perform well, despite more pessimistic predictions, feel most strongly in agreement. Possibly, the emphasis on performance, hence grades, leads the students (in the low predicted, high performing group) to feel that doing well is what is valued, regardless of the effort required.

C. Students' Perception of Other Students and Self

The final three significant interactions relate to the students' perceptions of their schools and class peers. As shown in Table 47, students from schools whose performance is inconsistent with expectation are more likely to believe that their peers would work hard, even if their work was not graded. It appears that the encouragement of their teachers to work hard has been internalized by these students. The two consistent groups are less convinced that they would continue to study if their work was not graded. The group predicted to do well, and doing well, gives the lowest estimate of the number of students who would continue to work. Neither of these groups has been, it is believed, strongly encouraged to perform. This confidence in the performance level of the upper group and acceptance of the performance level of the lower group is reflected in this item, as it has been in others which preceded it.

Despite this response, students in the inconsistent groups are still defensive about their performance. Both of these groups are more likely than the consistent ones to believe their peers do not perform at their potential because of fear of unpopularity (see Table 48). This is simply less of a concern to the consistent groups. It is not a fear for the upper group where high performance is the status quo, or in the lower group where the emphasis is simply not on grades. The final illustration of this point comes in the last item (see Table 49). The low predicted, high scoring group states that a greater number of their peers are unconcerned with poor grades, while the high predicted, high performance group is most concerned about their grades. It appears that in the former group, the emphasis is on performance, while in the latter group, the emphasis is on the tangible rewards of performance.

V. Summary

The analyses presented in this chapter are based on the pilot year of a projected longitudinal study of school effectiveness in Louisiana. The results are, therefore, preliminary and should be treated as such by the reader. The results from next year's work will be based on a much larger sample and will utilize a further refined questionnaire. Nevertheless, there is much to be gained from an examination of the results of the pilot year study. Among the most interesting findings are:

(1) Significant Predicted Score Main Effects
It was expected that differences in students' responses here would be explained by differences in socioeconomic backgrounds of the two groups. As anticipated, this occurred with regard to the students' perception of parental and peer expectations for them. However, teachers of the students predicted to do poorly are perceived by the students as having higher expectations for them. This contradiction between perceptions of teacher expectations and of parent/peer expectations was explained in terms of the teachers from

the lower predicted group being more willing to push their students. Although this push "to try" is internalized by the students, they still feel more likely to be teased for good performance.

(2) Significant Actual Score Main Effects

There was a difference between student expectations and sense of personal control between students in schools which actually did well and those which actually did poorly. These differences are explained by school climate, rather than socioeconomic background. Students from schools actually scoring more highly report a better learning environment: they feel that they learn a lot more; they enjoy reading more; and they feel it is more important to do well in school. Students from the schools scoring less highly have a more structured environment.

(3) Significant Interaction Effects

The overall pattern of results which explains the interactions is one in which consistent schools score similarly, and inconsistent schools score similarly. The school environment in schools scoring as predicted may be more accepting of the performance level of students: in the high consistent group, the students do well, and this is anticipated; in the low consistent group, the students do poorly, and the teachers seem resigned to the situation. In schools scoring inconsistently with performance, there is evidence of a greater push on the students to perform. This push has several repercussions for these students in the inconsistent schools: (1) they feel less of a sense of personal control in their school work; (2) they perceive a more structured classroom environment; and (3) they internalize the teachers' push, yet may not feel capable of meeting their teachers' expectations.

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Table 1. Socioeconomic Characteristics of Schools Scoring Above, Below, or Equal to the Parish's Average Score on State Assessment Tests, Caddo Third Grade Schools, 1980-81 School Year[1]

Table IA. Schools Scoring Above the Parish's Average Score on State Assessment Tests[2]

School Number	Mother's[4] Educational Level	Father's[4] Educational Level	Number of Siblings	Percentage of Fathers Who Are Professionals	Percentage[5] of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
A1	4.51	4.64	2.65	.40	.08	.06
A2	3.85	3.60	2.76	.14	.33	.49
A3	4.37	4.30	3.42	.32	.30	.47
A4	4.09	4.16	2.76	.24	.27	.25
A5	4.27	4.27	2.57	.43	.22	.20
A6	4.33	4.40	2.52	.30	.16	.17
A7	4.41	4.35	2.81	.44	.11	.08
Mean	4.26	4.31	2.66	.40	.21	.25

Table IB. Schools Scoring Below the Parish's Average Score on State Assessment Tests[3]

School Number	Mother's[4] Educational Level	Father's[4] Educational Level	Number of Siblings	Percentage of Fathers Who Are Professionals	Percentage[5] of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
B1	4.05	3.54	3.01	.13	.46	.60
B2	3.77	3.02	3.14	.00	.44	.99
B3	3.46	3.41	3.61	.07	.54	.86
B4	3.11	3.35	3.60	.00	.45	.98
B5	3.33	3.58	3.46	.00	.55	1.00
B6	4.00	3.95	3.70	.07	.62	.99
B7	3.94	3.09	3.20	.10	.45	1.00
B8	3.77	3.90	3.08	.16	.42	.99
B9	3.93	3.73	3.93	.04	.43	1.00
Mean	3.74	3.73	3.40	.07	.49	.96

Table IC. Schools Scoring Equal to the Parish's Average Score on State Assessment Tests

School Number	Mother's[4] Educational Level	Father's[4] Educational Level	Number of Siblings	Percentage of Fathers Who Are Professionals	Percentage[5] of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
W1	3.46	3.53	3.28	.09	.40	.67
W2	3.25	3.30	3.64	.03	.42	.63
W3	3.95	4.13	2.73	.16	.25	.21
W4	3.62	3.86	3.60	.07	.20	1.00
W5	3.89	3.83	3.82	.09	.43	.90
W6	3.72	3.53	3.56	.12	.33	.32
W7	4.27	4.54	2.85	.54	.19	.03
W8	4.15	4.36	3.40	.25	.29	.30
W9	3.71	3.62	3.28	.09	.54	.97
W10	3.67	3.30	2.93	.07	.27	.59
W11	3.50	3.66	3.20	.04	.32	1.00
W12	4.03	3.90	3.55	.17	.30	.07
W13	3.32	3.10	3.70	.10	.32	1.00
W14	3.60	3.40	2.73	.10	.29	.11
W15	4.04	4.00	2.82	.30	.20	.33
W16	3.33	3.50	3.53	.25	.13	.26
W17	3.60	3.37	3.46	.10	.41	.99
W18	3.07	3.71	4.10	.06	.30	1.00
W19	4.32	4.43	2.63	.51	.21	.07
W20	4.10	4.26	3.47	.44	.20	.05
W21	3.74	3.70	2.70	.07	.41	.90
W22	4.05	4.20	2.74	.32	.33	.08
W23	4.16	4.16	2.33	.20	.27	.01
W24	3.94	4.10	2.63	.22	.19	.06
W25	3.47	3.66	3.15	.08	.25	.47
W26	3.61	3.73	2.90	.08	.31	.28
W27	4.00	4.05	3.41	.14	.23	.34
W28	3.72	3.77	2.84	.14	.32	.31
W29	4.05	4.05	2.66	.29	.21	.17
Mean	3.81	3.83	3.10	.18	.32	.50

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[1] These 43 schools with third grade classrooms include 6 schools with grade levels K-8. There were initially 44 schools with third grade classrooms, but one school was eliminated because of missing data.

[2] For a school to be classified as scoring above the parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests.

[3] For a school to be classified as scoring below the parish's average assessment score, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessment tests.

[4] The scale values for mothers' and fathers' education are as follows: one—completed less than eight years of school; two—completed eighth grade, but did not attend high school; three—went to high school but did not graduate; four—graduated from high school; five—went to college.

[5] Non-professional mothers include those who are unskilled workers, semi-skilled workers, and skilled craftswomen. These do not include mothers who are professional workers or who stay at home.

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Table 2. Selected School Characteristics of Schools Scoring Above, Below, or Equal to the Parish's Average Score on State Assessment Tests, Caddo Third Grade Schools, 1980-81 School Year[1]

Table 2A. Schools Scoring Above the Parish's Average Assessment Score[2]

School Number	Average Faculty's Score on NTE Commons	Average Faculty's Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Average[4] Highest Degree Faculty Received	Average[5] Prestige of Institutions Faculty Attended	Number of Students	Student Teacher Ratio
A1	584.06	637.22	.75	6.79	10.86	2.81	1.81	381	22.41
A2	514.00	560.63	.45	6.15	10.45	2.88	2.41	317	20.82
A3	562.68	614.55	.66	6.41	9.17	2.67	1.85	459	20.86
A4	550.82	595.00	.45	8.90	9.41	2.78	2.33	378	29.08
A5	617.73	666.20	.78	10.26	9.48	2.57	1.85	232	33.14
A6	549.00	588.33	.54	7.58	13.63	2.77	2.05	410	25.63
A7	572.47	630.00	.63	4.89	14.26	2.81	1.88	655	26.20
Mean	564.39	613.13	.61	7.28	11.04	2.45	2.03	404.57	26.59

Table 2B. Schools Scoring Below the Parish's Average Assessment Score[3]

School Number	Average Faculty's Score on NTE Commons	Average Faculty's Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Average Highest Degree Faculty Received	Average Prestige of Institutions Faculty Attended	Number of Students	Student Teacher Ratio
B1	553.79	596.67	.50	8.89	10.27	2.80	2.29	639	23.67
B2	515.00	590.56	.45	6.82	9.07	2.45	2.32	345	19.17
B3	535.17	587.78	.51	9.56	7.95	2.57	2.16	262	29.11
B4	546.78	591.11	.40	8.10	10.80	2.67	2.07	187	20.78
B5	522.08	571.67	.35	7.75	11.35	2.89	2.22	538	22.41
B6	537.80	588.33	.40	9.49	9.00	2.60	2.27	614	23.00
B7	533.81	605.33	.44	8.47	12.69	2.66	2.34	547	21.03
B8	518.12	537.65	.40	8.49	9.25	2.38	2.30	676	21.81
B9	552.44	611.25	.44	10.10	9.67	2.62	2.31	559	20.62
Mean	534.99	586.71	.43	8.62	10.01	2.63	2.25	463	23.07

Table 2C. Schools Scoring Equal to the Parish's Average Assessment Score

School Number	Average Faculty's Score on NTE Commons	Average Faculty's Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Average Highest Degree Faculty Received	Average Prestige of Institutions Faculty Attended	Number of Students	Student Teacher Ratio
W1	534.82	573.75	.47	5.42	11.23	1.76	2.36	556	21.30
W2	573.63	596.88	.58	8.21	9.88	2.55	1.85	277	21.31
W3	557.70	589.09	.52	5.96	11.06	2.40	2.08	497	27.61
W4	509.43	564.29	.18	10.15	8.85	2.47	2.37	376	31.33
W5	526.56	570.44	.48	10.71	7.48	2.43	2.11	505	21.96
W6	542.62	605.39	.56	8.00	8.52	2.63	2.05	248	17.71
W7	554.44	606.62	.56	6.50	12.17	2.66	2.09	810	25.31
W8	535.10	572.10	.63	6.58	12.03	2.63	1.83	667	26.68
W9	553.20	603.89	.52	9.98	9.13	2.73	2.08	402	23.63
W10	498.91	560.00	.50	9.85	7.95	2.31	2.31	194	19.40
W11	570.63	613.89	.34	9.32	11.56	2.77	2.11	578	22.23
W12	501.19	559.38	.38	6.79	10.83	2.67	2.10	609	27.68
W13	534.30	569.00	.40	6.90	10.20	2.53	2.29	199	18.09
W14	554.43	598.57	.79	5.79	8.05	2.75	2.00	357	23.80
W15	549.87	615.33	.52	6.83	9.91	2.62	1.95	430	30.71
W16	556.25	591.75	.60	7.24	6.28	2.50	1.77	278	18.53
W17	579.00	576.15	.42	8.58	9.42	2.86	2.14	257	18.36
W18	553.71	603.85	.28	8.30	9.47	2.60	2.04	382	25.47
W19	554.95	598.50	.60	9.73	9.93	2.68	2.08	500	27.77
W20	521.20	566.09	.68	5.62	10.63	2.97	2.16	760	25.33
W21	589.29	611.92	.51	7.46	9.97	2.48	1.93	378	18.90
W22	555.63	600.67	.68	6.68	10.13	2.50	1.91	993	29.21
W23	538.95	575.79	.61	7.82	12.84	2.69	1.88	617	23.73
W24	591.82	630.00	.67	7.66	11.88	2.61	2.14	409	29.21
W25	529.15	587.14	.45	7.23	5.95	2.52	2.09	314	24.15
W26	546.85	596.41	.66	7.86	7.59	2.44	2.09	913	24.68
W27	547.36	595.37	.54	8.70	9.19	2.58	2.04	1,058	26.45
W28	537.93	560.00	.44	6.23	12.90	2.84	1.97	603	24.12
W29	547.22	541.00	.45	5.41	16.48	2.83	2.21	559	26.62
Mean	544.35	587.35	.52	7.64	(10.04)	2.62	2.07	507.79	24.19

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[1] These 45 schools with third grade classrooms include 6 schools with grade levels K-8. There were initially 46 schools with third grade classrooms, but one school had to be eliminated because of missing data.

[2] For a school to be classified as scoring above the parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests.

[3] For a school to be classified as scoring below the parish's average assessment scores, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessment tests.

[4] Scale values for average highest degree faculty received are as follows: one—less than Bachelor's degree; two—Bachelor's degree; three—Master's degree; four—Master's degree plus thirty hours; five—Educational Specialist; six—Doctoral degree (Ed.D or Ph.D).

[5] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates [illegible] in [illegible] from that institution who passed the NTE. [illegible] of [illegible] indicate the [illegible] prestige; [illegible] value of [illegible] indicate the [illegible] prestige.

Table 3. Statistical Means of All Variables in
Relation to the Parish's Average Score on State Assessment Tests,
Caddo Third Grade Schools

	Above Average	Equal To Average	Below Average
Number of Schools	7	29	9
Mothers' Educational Level	4.26	3.81	3.74
Fathers' Educational Level	4.31	3.83	3.73
Number of Siblings	2.64	3.10	3.40
Percentage of Fathers Who Are Professionals	.40	.18	.07
Percentage of Mothers Who Are Not Professionals	.21	.32	.49
Percentage of Students Who Are Black	.25	.50	.94
Faculty's Average Score on NTE Commons	564.39	544.35	534.99
Faculty's Average Score on NTE Area	613.13	587.35	586.71
Percentage of Faculty that Is White	.61	.52	.43
Average Number of Faculty Absences	7.28	7.64	8.62
Mean Total Faculty Experience	11.04	10.04	10.01
Average Highest Degree Faculty Received	2.75	2.62	2.63
Average Prestige* of Institutions Faculty Attended	2.03	2.07	2.25
Number of Students	404.57	507.79	463.00
Student Teacher Ratio	26.59	24.19	23.07

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 4. Socioeconomic Characteristics of Schools Scoring Above, Below, or Equal to the Parish's Average Assessment Score on State Assessment Tests, Caddo Seventh Grade Schools, 1980-81 School Year

Table 4A. Schools Scoring Above the Parish's Average Score on State Assessment Tests[1]

School Number	Mothers' Educational Level	Fathers' Educational Level	Number Of Siblings	Percentage Of Fathers Who Are Professionals	Percentage Of Mothers Who Are Not Professionals	Percentage Of Students Who Are Black
A1	4.21	4.28	3.12	.47	.26	.11
A2	3.92	3.76	2.96	.19	.29	.27
A3	4.47	4.61	3.18	.67	.13	.21
Mean	4.20	4.22	3.09	.44	.22	.20

Table 4B. Schools Scoring Below the Parish's Average Score on State Assessment Tests[2]

School Number	Mothers' Educational Level	Fathers' Educational Level	Number Of Siblings	Percentage Of Fathers Who Are Professionals	Percentage Of Mothers Who Are Not Professionals	Percentage Of Students Who Are Black
B1	3.91	3.88	3.99	.16	.42	.95
B2	3.92	3.85	3.98	.12	.41	.98
B3	3.50	3.29	3.84	.04	.28	.59
B4	3.78	3.52	4.21	.11	.44	.98
Mean	3.78	3.64	4.00	.11	.39	.88

Table 4C. School Scoring Equal to the Parish's Average Score on State Assessment Tests

School Number	Mothers' Educational Level	Fathers' Educational Level	Number Of Siblings	Percentage Of Fathers Who Are Professionals	Percentage Of Mothers Who Are Not Professionals	Percentage Of Students Who Are Black
W1	3.98	4.06	3.36	.38	.25	.51
W2	3.91	3.70	4.15	.11	.55	1.00
W3	3.18	2.64	4.28	.03	.28	.98
W4	3.93	3.99	3.88	.11	.49	.92
W5	3.67	3.65	3.81	.12	.37	.57
W6	3.88	4.01	3.81	.13	.34	.57
W7	3.37	3.43	2.97	.20	.17	.11
W8	4.03	4.11	3.30	.26	.23	.26
W9	3.80	3.96	3.43	.21	.34	.36
W10	3.56	3.23	4.04	.22	.15	.26
W11	4.00	4.04	3.49	.31	.34	.34
Mean	3.75	3.71	3.68	.19	.32	.53

[1] For a school to be classified as scoring above the parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests.

[2] For a school to be classified as scoring below the parish's average assessment score, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessment tests.

[3] The scale values for mothers' and fathers' education are as follows; one—completed less than eight years of school; two—completed eighth grade but did not attend high school; three—went to high school but did not graduate; four—graduated from high school; five—went to college.

[4] Non-professional mothers include those who are unskilled workers, semi-skilled workers, and skilled craftswomen. These do not include mothers who are professional workers or who stay at home.

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Table 5. Selected School Characteristics of Schools Scoring Above Below, or Equal to the Parish's Average Score on State Assessment Tests, Caddo Seventh Grade Schools, 1980-81 School Year

Table 5A. Schools Scoring Above the Parish's Average Score on State Assessment Tests[1]

School Number	Faculty's Average Scores on NTE Commons	Faculty's Average Score on NTE Area	Percentage Of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Average[3] Highest Degree Faculty Received	Average[4] Prestige of Institutions That Faculty Attended	Average Number of Days Suspended per Student	Number of Students	Teacher Ratio
A1	566.08	571.52	.66	6.80	11.02	3.03	2.11	.34	808	38.48
A2	546.85	596.41	.66	7.86	7.59	2.44	2.09	.36	913	24.68
A3	565.70	571.83	.65	6.10	9.94	2.92	1.92	.97	734	30.58
Mean	559.54	579.91	.66	6.92	9.52	2.80	2.04	.56	818.33	31.25

Table 5B. Schools Scoring Below the Parish's Average Score on State Assessment Tests[2]

B1	529.71	556.32	.34	8.34	10.80	2.90	2.23	.86	575	26.14
B2	527.16	539.47	.40	8.26	13.21	2.89	2.15	.81	803	29.74
B3	498.91	560.00	.50	9.85	7.95	2.31	2.31	.12	194	19.40
B4	528.19	549.00	.34	8.86	9.98	2.69	2.16	1.05	910	28.44
Mean	520.99	551.20	.40	8.84	9.52	2.70	2.21	.71	620.50	25.93

Table 5C. Schools Scoring Equal to the Parish's Average Score on State Assessment Tests

W1	565.63	570.53	.55	6.60	11.58	3.14	1.93	1.05	474	29.63
W2	495.67	536.67	.28	10.75	13.28	2.81	2.24	.95	370	28.46
W3	546.78	591.11	.40	8.10	10.80	2.67	2.07	.03	187	20.78
W4	510.24	538.57	.34	6.86	9.72	2.88	2.24	1.08	662	31.52
W5	580.74	605.26	.47	8.21	11.89	2.86	1.92	1.59	631	30.05
W6	524.06	555.56	.53	5.43	12.67	2.69	2.23	.45	580	34.12
W7	554.43	598.57	.79	5.79	8.05	2.75	2.00	.10	357	23.80
W8	545.17	570.00	.59	5.53	12.19	2.75	2.03	.95	1,588	41.79
W9	533.82	582.94	.59	6.56	12.59	3.12	1.96	1.00	487	30.44
W10	556.25	591.75	.60	7.24	6.28	2.50	1.77	.44	278	18.53
W11	547.36	595.37	.54	8.70	9.19	2.58	2.03	.12	1,058	26.45
Mean	541.83	576.03	.51	7.25	10.75	2.80	2.04	.70	606.55	28.69

[1] For a school to be classified as scoring above the parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests.

[2] For a school to be classified as scoring below the parish's average assessment score, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessment tests.

[3] Scales values for average highest degree faculty received are as follows; one—less than a Bachelor's degree; two—Bachelor's degree; three—Master's degree; four—Master's degree plus thirty hours; five—Educational Specialist; six—Doctoral degree (Ed.D or Ph.D).

[4] These data were based on where the faculty received their Bachelor's degree. Values of one, two or three were assigned to these universities . A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

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Table 6. Statistical Means of All Variables in Relation to the Parish's Average Score on State Assessment Tests, Caddo Seventh Grade Schools

	Above Average	Equal To Average	Below Average
Number of schools	3	11	4
Mothers' Educational Level	4.20	3.75	3.78
Fathers' Educational Level	4.22	3.71	3.64
Number of Siblings	3.09	3.68	4.00
Percentage of Fathers Who Are Professionals	.44	.19	.11
Percentage of Mothers Who Are Not Professionals	.22	.32	.39
Percentage of Students Who Are Black	.20	.53	.88
Faculty's Average Score on NTE Commons	559.54	541.83	520.99
Faculty's Average Score on NTE Area	579.91	576.03	551.20
Percentage of Faculty that Is White	.66	.51	.40
Average Number of Faculty Absences	6.92	7.25	8.84
Mean Total Faculty Experience	9.52	10.75	10.49
Average Highest Degree Faculty Received	2.80	2.80	2.70
Average Prestige* of Institutions Faculty Attended	2.04	2.04	2.21
Average Number of Days Suspended Per Student	.56	.70	.71
Number of Students	818.33	606.55	620.50
Student Teacher Ratio	31.25	28.69	25.93

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 7. Socioeconomic Characteristics of Schools Scoring Above, Below or Equal to the Parish's Average Score on State Assessment Tests, Caddo Tenth Grade Schools, 1980–81 School Year

Table 7A. Schools Scoring the Above Average Parish's Score on State Assessment Tests[1]

School Name	Mothers'[3] Educational Level	Fathers'[3] Educational Level	Number of Siblings	Percentage of Fathers Who Are Professional	Percentage[4] of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
A1	.4.38	4.38	3.54	.50	.23	.43
Table 7B. Schools Scoring Below the Average Parish's Score on State Assessment Tests[2]						
B1	3.71	3.59	4.51	.14	.42	.84
B2	3.51	3.37	4.81	.09	.38	.99
Mean	3.61	3.48	4.66	.12	.40	.92
Table 7C. Schools Scoring Equal to the Average Parish's Score on State Assessment Tests						
W1	4.04	4.10	4.05	.34	.26	.50
W2	4.21	4.30	3.73	.47	.22	.39
W3	4.00	4.01	3.75	.28	.28	.46
W4	3.58	3.46	4.01	.19	.16	.43
W5	3.99	3.82	3.70	.32	.24	.26
W6	4.15	4.20	3.36	.38	.21	.17
W7	3.59	3.40	4.31	.15	.49	1.00
W8	3.83	3.82	3.69	.17	.31	.41
Mean	3.92	3.89	3.82	.29	.27	.45

[1] For a school to be classified as scoring above the parish's average score assessment score, that school had to score one standard deviation the parish's average assessment score on at least two of the assessement tests.

[2] For a school to be classified as scoring below parish's average assessment score, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessment tests.

[3] The scale values for mothers' and fathers' education are as follows; one—completed less than eight years of school; two—completed eighth grade, but did not attend high school; three—went to high school but did not graduate; four—graduated from high school; five—went to college.

[4] Non-professional mothers include those who are unskilled workers, semi-skilled workers, and skilled craftswomen. These do not include mothers who are professional workers or who stay at home.

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Table 8. Selected School Characteristics of Schools Scoring Above, Below or Equal to the Parish's Average Score on State Assessment Test, Caddo Tenth Grade Schools, 1980-81 School Year

Table 8A. School Scoring Above Parish's Average Score on State Assessment Tests[1]

School Number	Average Faculty Score on NTE Commons	Average Faculty Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Average[3] Highest Degree Faculty Received	Average[4] Prestige of Institutions Faculty Attended	Average Number of Days Suspended per Student	Number of Students	Student Teacher Ratio
A1	612.26	611.70	.65	3.15	8.97	2.94	1.65	.01	442	17.00
Table 8B. Schools Scoring Below Parish's Average Score on State Assessment Tests[2]										
B1	509.29	533.97	.38	7.58	11.44	2.79	2.18	.87	1,937	41.21
B2	554.24	573.05	.39	7.46	11.75	2.90	2.11	1.09	1,512	34.36
Mean	531.77	553.51	.39	7.52	11.60	2.85	2.15	.98	1,724.50	37.78
Table 8C. Schools Scoring Equal To Parish's Average Score on State Assessment Tests										
W1	579.37	598.76	.62	7.01	12.47	2.91	1.87	.70	1,879	41.76
W2	573.70	585.83	.61	5.22	13.66	2.89	1.87	.82	2,073	40.65
W3	555.80	564.07	.44	6.25	11.37	2.91	2.06	.72	1,932	42.93
W4	526.90	563.93	.54	5.63	12.17	2.57	2.23	.72	1,006	34.69
W5	545.17	570.00	.59	5.53	12.19	2.75	2.03	.95	1,588	41.79
W6	554.85	567.05	.52	6.65	12.28	2.97	2.10	.85	2,885	37.47
W7	553.73	574.15	.35	9.00	12.92	2.65	2.13	1.04	1,473	33.48
W8	562.53	586.82	.62	6.61	14.18	3.10	1.91	.73	2,224	33.70
Mean	556.50	576.33	.54	6.49	12.66	2.85	2.02	.82	1,882.50	38.31

[1] For a school to be classified as scoring above parish's average assessment score, that school had to score one standard deviation above the parish's average assessment score on at least two of the assessment tests.

[2] For a school to be classified as scoring below parish's average assessment score, that school had to score one standard deviation below the parish's average assessment score on at least two of the assessments tests.

[3] Scale values for average highest degree faculty received are as follows: one--less than a Bachelor's degree; two--Bachelor's degree; three--Master's degree; four--Master's degree plus thirty hours; five--Educational Specialist; six--Doctoral degree (Ed.D or PhD).

[4] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

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Table 9. Statistical Means of All Variables in Relation to the Parish's Average Score on State Assessment Tests, Caddo Tenth Grade Schools

	Above Average	Equal To Average	Below Average
Number of Schools	1	8	2
Mothers' Educational Level	4.38	3.92	3.61
Fathers' Educational Level	4.38	3.89	3.48
Number of Siblings	3.54	3.82	4.66
Percentage of Fathers Who Are Professionals	.50	.29	.12
Percentage of Mothers Who Are Not Professionals	.23	.27	.40
Percentage of Students Who Are Black	.43	.45	.92
Faculty's Average Score on NTE Commons	612.26	556.50	531.77
Faculty's Average Score on NTE Area	611.70	576.33	553.51
Percentage of Faculty that Is White	.65	.54	.39
Average Number of Faculty Absences	3.15	6.49	7.52
Mean Total Faculty Experience	8.97	12.66	11.60
Average Highest Degree Faculty Received	2.94	2.85	2.85
Average Prestige* of Institutions Faculty Attended	1.65	2.02	2.15
Average Number of Days Suspended Per Student	.01	.82	.98
Number of Students	442.00	1882.50	1724.50
Student Teacher Ratio	17.00	38.31	37.78

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 10. Socioeconomic Characteristics for Schools Scoring Above, Below or Approximately As Predicted on State Assessment Tests, Caddo Third Grade Schools, 1980-81 School Year[1]

Table 10A. Schools Scoring Above Predicted on State Assessment Tests[2]

School Number	Math[3] Score	Reading[3] Score	Writing[3] Score	Mothers'[4] Educational Level	Fathers'[4] Educational Level	Number of Siblings	Percentage of Fathers Who Are Professionals	Percentage[5] of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
A1	+2	+2	+3	3.25	3.38	3.64	.03	.42	.63
A2	+2	+3	+2	3.62	3.86	3.60	.07	.28	1.00
A3	+2	+2	+2	3.85	3.88	2.76	.14	.33	.49
A4	+1	+2	+2	4.37	4.38	2.42	.32	.30	.47
A5	+3	+1	+2	4.09	4.14	2.76	.24	.27	.25
A6	+3	+3	+3	3.89	3.83	3.82	.09	.43	.98
A7	+2	+3	+2	3.71	3.62	3.28	.09	.34	.97
A8	+3	+2	+2	3.32	3.18	3.79	.10	.52	1.00
A9	+2	+3	+4	4.33	4.49	2.52	.36	.14	.17
A10	+3	+1	+2	3.61	3.73	2.98	.08	.31	.28
Mean				3.80	3.85	3.16	.15	.35	.62
Table 10B. Schools Scoring Below Predicted on State Assessment Tests[2]									
B1	-3	-2	-2	4.05	3.94	2.91	.13	.46	.68
B2	-4	-4	-2	3.46	3.41	3.61	.07	.34	.86
B3	-1	-2	-1	3.11	3.35	3.60	.00	.45	.98
B4	-2	-2	-1	4.15	4.24	3.40	.25	.29	.30
B5	-2	-2	-4	4.09	3.95	3.70	.07	.62	.99
B6	-2	-3	-2	3.33	3.50	3.53	.25	.13	.26
B7	-0	-2	-2	3.74	3.70	2.70	.07	.41	.98
B8	-1	-2	-3	3.47	3.64	3.15	.08	.25	.47
B9	-2	-1	-3	4.05	4.05	2.66	.29	.21	.17
Mean				3.72	3.75	3.25	.13	.37	.63
Table 10C. Schools Scoring Approximately As Predicted on State Assessment Tests[2]									
W1	+0	0	+1	4.51	4.64	2.65	.68	.08	.06
W2	0	+2	0	3.50	3.53	3.38	.09	.40	.67
W3	0	0	-1	3.95	4.13	2.73	.16	.35	.21
W4	0	-2	-1	3.77	3.82	3.14	.00	.44	.99
W5	0	+1	0	3.72	3.53	3.56	.12	.33	.52
W6	0	0	0	4.27	4.54	2.85	.34	.19	.03
W7	-3	0	0	3.67	3.38	2.93	.07	.27	.59
W8	0	+1	0	3.58	3.66	3.28	.04	.52	1.00
W9	0	-1	-1	4.03	3.98	2.55	.17	.30	.87
W10	0	0	0	3.55	3.58	3.46	.08	.55	1.00
W11	+1	0	0	3.60	3.48	2.73	.18	.29	.11
W12	0	0	0	4.04	4.08	2.82	.30	.20	.33
W13	-2	0	0	3.94	3.89	3.20	.10	.45	.10
W14	0	+2	0	3.68	3.37	3.46	.10	.41	.99
W15	0	0	0	3.87	3.71	4.10	.06	.39	1.00
W16	0	-1	0	3.77	3.90	3.00	.16	.42	.99
W17	0	-1	-1	4.32	4.43	2.63	.51	.21	.07
W18	-2	-1	0	3.93	3.73	3.93	.04	.45	1.00
W19	+1	0	-1	4.27	4.27	2.57	.43	.22	.20
W20	0	0	0	4.10	4.24	2.47	.44	.20	.05
W21	+1	+1	+1	4.05	4.20	2.74	.32	.33	.08
W22	+1	0	0	4.16	4.16	2.33	.20	.27	.01
W23	-1	0	0	3.94	4.18	2.63	.22	.19	.06
W24	-1	0	0	4.41	4.35	2.81	.64	.11	.08
W25	-1	0	0	4.08	4.05	3.41	.14	.23	.34
W26	+1	0	+1	3.72	3.77	2.84	.14	.32	.51
Mean				3.94	1.95	3.01	.23	.31	.49

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[1] These 45 schools with third grade classrooms include 6 schools with grade levels K-8. There were initially 46 schools with third grade classrooms, but one school was eliminated because of missing data.

[2] For a school to be classified as scoring above predicted on the state assessment tests, it had to score +4 or more across the three assessment tests; for a school to be classified as scoring below predicted, it had to score -4 or less across the three assessment tests.

[3] These scores indicate the number of standardized residual values above or below their predicted scores that the schools scored on the respective state assessment tests. Each score of one corresponds to a range of .5 standardized residual values. For example, a score of zero indicates a score of ±.5 standardized residual values from the predicted score; a score of ±1 indicates a score of ±.5 to ±1 standardized residual values from the predicted score; a score of ±2 indicates a score of ±1 to ±1.5 standardized residual values from the predicted score.

[4] The scale values for mothers' and fathers' education are as follows: one--completed less than eight years of school; two--completed eighth grade, but did not attend high school; three--went to high school but did not graduate; four--graduated from high school; five--went to college.

[5] Non-p[illegible]onal [illegible] in[illegible] those [illegible] u[illegible] wo[illegible] semi-[illegible] workers and [illegible] craftsmen. These do not include mothers who are professional workers or who stay at home.

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Table 11. Selected School Characteristics for Schools Scoring Above, Below or Approximately As Predicted on State Assessment Tests, Caddo Third Grade Schools, 1980-81 School Year[1]

Table 11A. Schools Scoring Above Predicted on State Assessment Tests[2]

School Number	Faculty's Average Score on NTE Commons	Faculty's Average Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Years Faculty Experience	Average[3] Highest Degree Faculty Received	Average[4] Prestige of Institutions Faculty Attended	Number of Students	Student Teacher Ratio
A1	573.63	596.88	.58	8.21	9.88	2.55	1.85	277	21.31
A2	509.43	564.29	.18	10.15	8.85	2.47	2.37	376	31.33
A3	514.00	560.63	.45	6.15	10.45	2.88	2.41	317	28.82
A4	562.68	614.55	.66	6.41	9.17	2.67	1.85	459	20.86
A5	550.82	595.00	.45	8.90	9.41	2.78	2.33	378	29.08
A6	526.56	570.44	.48	10.71	7.48	2.43	2.11	505	21.96
A7	553.20	603.89	.52	9.98	9.13	2.73	2.08	402	23.63
A8	534.30	569.00	.40	6.90	10.20	2.53	2.29	199	18.09
A9	549.00	588.33	.54	7.58	13.63	2.77	2.05	410	25.63
A10	546.85	596.41	.64	7.86	7.59	2.44	2.09	913	24.68
Mean	542.05	585.94	.49	8.29	9.58	2.63	2.14	423.60	24.54
Table 11B. Schools Scoring Below Predicted on State Assessment Tests[2]									
B1	553.79	596.67	.50	8.89	10.27	2.80	2.29	639	23.67
B2	535.17	587.78	.51	9.56	7.95	2.57	2.14	262	29.11
B3	546.78	591.11	.40	8.10	10.80	2.67	2.07	187	20.78
B4	535.10	572.10	.64	6.58	12.03	2.63	1.83	667	26.68
B5	537.80	588.33	.40	9.49	9.00	2.60	2.67	414	23.00
B6	556.25	591.75	.60	7.24	6.28	2.50	1.77	278	10.53
B7	589.29	611.92	.51	7.46	[illegible].97	2.48	1.93	378	18.90
B8	529.15	567.14	.45	7.22	5.95	2.52	2.09	314	24.15
B9	547.22	541.00	.45	5.41	16.48	2.83	2.21	559	26.62
Mean	547.84	585.31	.50	7.76	9.86	2.62	2.06	410.89	23.49
Table 11C. Schools Scoring Approximately As Predicted on State Assessment Tests									
W1	584.06	637.22	.75	6.79	10.86	2.81	1.81	381	22.41
W2	534.82	573.75	.47	5.42	11.23	2.76	2.36	556	21.38
W3	557.70	589.09	.52	5.96	11.04	2.40	2.08	497	27.61
W4	515.00	590.56	.45	6.82	9.07	2.45	2.32	345	19.17
W5	542.62	605.39	.57	8.00	8.52	2.63	2.05	248	17.71
W6	554.44	606.62	.57	6.50	12.17	2.64	2.09	810	25.31
W7	498.91	560.00	.50	9.85	7.95	2.31	2.31	194	19.40
W8	570.63	613.89	.34	9.32	11.56	2.77	2.11	578	22.23
W9	501.19	559.38	.38	6.79	10.83	2.67	2.10	609	27.68
W10	522.08	571.67	.35	7.75	11.35	2.89	2.22	5[illegible]8	22.41
W11	554.43	598.57	.79	5.79	8.05	2.75	2.00	357	23.80
W12	549.87	615.33	.54	6.83	9.91	2.62	1.95	430	30.71
W13	533.81	605.33	.44	8.47	12.69	2.66	2.34	547	21.03
W14	579.00	576.15	.42	8.58	9.42	2.86	2.14	257	18.36
W15	553.71	603.85	.28	8.30	9.47	2.60	2.04	382	25.47
W16	518.12	537.65	.40	8.49	9.24	2.38	2.30	676	21.81
W17	554.95	598.50	.60	9.73	9.93	2.68	2.08	500	27.77
W18	552.44	611.25	.44	10.10	9.67	2.62	2.31	559	26.62
W19	617.73	666.20	.78	10.26	9.48	2.57	1.85	232	33.14
W20	521.20	566.09	.68	5.62	10.43	2.97	2.16	760	25.33
W21	555.63	600.67	.68	6.68	10.13	2.50	1.91	993	29.21
W22	538.95	575.79	.61	7.82	12.84	2.69	1.88	617	23.73
W23	591.82	630.00	.67	7.66	11.88	2.61	2.14	409	29.21
W24	572.47	630.00	.63	4.89	14.26	2.81	1.88	655	26.20
W25	547.22	595.37	.54	8.70	9.19	2.58	2.04	1058	26.45
W26	537.93	560.00	.44	6.23	12.90	2.84	1.97	603	24.12
Mean	546.19	595.32	.53	7.59	10.54	2.66	2.10	503.42	24.55

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[1] These 45 schools with third grade classrooms include 6 schools with grade levels K-8. There were initially 46 schools with third grade classrooms, but one school was eliminated because of missing data.

[2] For a school to be classified as scoring above predicted scores on the state assessment tests, it had to score +4 or more across the three assessment tests; for a school to be classified as scoring below predicted scores, it had to score -4 or less across the three assessment tests.

[3] Scale values for average highest degree faculty received are as follows: one--less than Bachelor's Degree; two--Bachelor's degree; three--Master's degree; four--Master's degree plus thirty hours; five--Educational Specialist; six--Doctoral degree (Ed.D or Ph.D).

[4] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 12. Statistical Means of All Variables in Relation to Predicted State Assessment Scores, Caddo Third Grade Schools

	Above Predicted	Approximately As Predicted	Below Predicted
Number of Schools	10	26	9
Mothers' Educational Level	3.80	3.94	3.72
Fathers' Educational Level	3.85	3.95	3.75
Number of Siblings	3.16	3.01	3.25
Percentage of Fathers Who Are Professionals	.15	.23	.13
Percentage of Mothers Who Are Not Professionals	.35	.31	.37
Percentage of Students Who Are Black	.62	.49	.63
Faculty's Average Score on NTE Commons	542.05	546.19	547.84
Faculty's Average Score on NTE Area	585.94	595.32	585.31
Percentage of Faculty that Is White	.49	.53	.50
Average Number of Faculty Absences	8.29	7.59	7.76
Mean Total Faculty Experience	9.58	10.54	9.86
Average Highest Degree Faculty Received	2.63	2.66	2.62
Average Prestige* of Institutions Faculty Attended	2.14	2.10	2.06
Number of Students	423.60	530.42	410.89
Student Teacher Ratio	24.54	24.55	23.49

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 13. Socioeconomic Characteristics for Schools Scoring Above, Below, or Approximately As Predicted on State Assessment Scores, Caddo Seventh and Tenth Grade Schools, 1980-81 School Year[1]

Table 13A. Schools Scoring Above Predicted On State Assessment Tests[2]

School Number	Math Score	Reading Score	Writing Score	Mothers'[4] Educational Level	Fathers'[4] Educational Level	Number of Siblings	Percentage Of Fathers Who Are Professionals	Percentage[5] Of Mothers Who Are Not Professionals	Percentage of Students Who Are Black
A1	+4	+1	+1	4.38	4.38	3.54	.50	.23	.43
A2	+3	+3	+3	3.91	3.70	4.15	.11	.55	1.00
A3	0	+3	+1	3.18	2.64	4.28	.03	.28	.98
A4	+2	+3	+3	4.21	4.28	3.12	.47	.26	.11
A5	+3	+1	+2	3.92	3.76	1.96	.19	.29	.27
Mean				3.92	3.75	3.61	.26	.32	.56
Table 13B. Schools Scoring Below Predicted on State Assessment Tests[2]									
B1	-3	-2	0	3.91	3.88	3.99	.16	.42	.95
B2	0	-3	-3	3.98	4.06	3.36	.38	.25	.51
B3	-3	-1	0	4.21	4.30	3.73	.47	.22	.39
B4	0	-3	-2	3.50	3.29	3.84	.04	.28	.59
B5	0	-2	-3	4.00	4.01	2.75	.28	.28	.46
B6	-1	0	-3	3.87	3.43	2.97	.20	.17	.11
Mean				3.83	3.83	3.61	.26	.27	.50
Table 13C. Schools Scoring as Predicted on State Assessment Tests									
W1	0	0	+1	4.04	4.10	4.05	.34	.26	.50
W2	-1	0	0	3.92	3.85	3.98	.12	.41	.98
W3	0	-2	0	3.71	3.59	4.51	.14	.42	.84
W4	+1	+1	+1	3.51	3.37	4.81	.09	.38	.99
W5	0	+1	+1	3.93	2.99	2.88	.11	.49	.92
W6	-2	0	+1	3.78	3.52	4.21	.11	.44	.98
W7	0	0	-1	3.67	3.65	3.81	.12	.37	.57
W8	-1	+1	0	3.88	4.02	3.82	.13	.38	.57
W9	+3	+1	-3	3.58	3.46	4.01	.19	.16	.43
W10	-1	+1	+2	4.03	4.11	3.30	.26	.23	.26
W11	-1	-1	0	3.80	3.96	3.43	.21	.34	.36
W12	-3	0	+3	3.56	3.23	4.04	.22	.15	.26
W13	+1	0	0	4.15	4.20	3.36	.38	.21	.17
W14	0	-1	+2	4.00	4.04	3.49	.31	.34	.34
W15	0	0	-1	3.59	3.40	4.31	.15	.49	1.00
W16	+2	0	0	3.83	3.82	3.69	.17	.31	.41
W17	-1	0	0	4.47	4.61	3.18	.67	.13	.21
Mean				3.85	3.82	3.88	.22	.32	.58

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[1] These 28 schools include one school that has both seventh and tenth grade classrooms. The data from this school is from the seventh grade classrooms only.

[2] For a school to be classified as scoring above predicted on state assessment tests, it had to score +4 or more across the three assessment tests; for a school to be classified as scoring below predicted on the state assessment tests, it had to score -4 or less across the three assessment tests.

[3] These scores indicate the number of standardized residual values above or below their predicted scores that the schools scored on the respective state assessment tests. Each score of one corresponds to a range of .5 standardized residual values. For example, a score of zero indicates a score of ±.5 standardized residual values from the predicted score; a score of ±.1 indicates a score of ±.5 to ±1 standardized residual values from the predicted score; a score of ±2 indicates a score of +1 to ±1.5 standardized residual values from the the predicted score.

[4] The scale values for mothers' and fathers' education are as follows; one--completed less than eight years of school; two--completed eighth grade, but did not attend high school; three--went to high school, but did not graduate; four--graduated from high school; five--went to college.

[5] Non-professional mothers include those who are unskilled workers, semi-skilled workers, and skilled craftwomen. These do not include

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Table 14. Selected School Characteristics for Schools Scoring Above, Below or Approximately As Predicted on State Assessment Scores, Caddo Seventh and Tenth Grade Schools, 1980-81 School Year[1]

Table 14A. Schools Scoring Above Predicted on State Assessment Tests[2]

School Number	Faculty's Average Score on NTE Commons	Faculty's Average Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Highest Degree Faculty Received	Average[3] Prestige Institutions Faculty Attended	Average[4] of Days Suspended per Student	Number of Students	Student Teacher Ratio
A1	612.26	611.70	.65	3.15	8.97	2.94	1.65	.01	442	17.00
A2	495.67	536.67	.28	10.75	13.28	2.81	2.24	.95	370	28.46
A3	546.78	591.11	.40	8.10	10.80	2.67	2.07	.03	187	20.78
A4	566.07	571.52	.66	6.80	11.02	2.11	3.03	.34	808	38.48
A5	546.85	596.41	.66	7.86	7.59	2.44	2.09	.36	913	24.68
Mean	553.53	581.48	.53	7.33	10.33	2.77	2.03	.34	554.00	25.88

Table 14B. Schools Scoring Below Predicted Scores on State Assessment Tests[2]

School Number	Faculty's Average Score on NTE Commons	Faculty's Average Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Highest Degree Faculty Received	Average[3] Prestige Institutions Faculty Attended	Average[4] of Days Suspended per Student	Number of Students	Student Teacher Ratio
B1	529.71	556.32	.34	8.34	10.80	2.90	2.23	.86	575	26.14
B2	565.63	570.53	.55	6.60	11.58	3.14	1.93	1.05	474	29.63
B3	573.70	585.83	.61	5.22	13.66	2.89	1.87	.82	2,073	40.65
B4	498.91	560.00	.50	9.85	7.95	2.31	2.31	.12	194	19.40
B5	555.80	564.07	.44	6.25	11.37	2.91	2.06	.72	1,932	42.93
B6	554.43	598.57	.79	5.79	8.05	2.75	2.00	.10	357	23.80
Mean	546.36	572.55	.54	7.01	10.57	2.82	2.07	.61	934.17	30.42

Table 14C. Schools Scoring Approximately As Predicted on State Assessment Tests

School Number	Faculty's Average Score on NTE Commons	Faculty's Average Score on NTE Area	Percentage of Faculty That is White	Average Number of Faculty Absences	Mean Total Faculty Experience	Highest Degree Faculty Received	Average[3] Prestige Institutions Faculty Attended	Average[4] of Days Suspended per Student	Number of Students	Student Teacher Ratio
W1	579.37	598.76	.62	7.01	12.47	2.91	1.87	.70	1,879	41.76
W2	527.16	539.47	.40	8.26	13.21	2.89	2.15	.81	803	29.74
W3	509.29	533.97	.38	7.58	11.44	2.79	2.18	.87	1,937	41.21
W4	554.24	573.05	.39	7.46	11.75	2.90	2.11	1.09	1,512	34.36
W5	510.24	538.57	.32	6.86	9.72	2.88	2.24	1.08	662	31.52
W6	528.19	549.00	.34	8.86	9.98	2.69	2.16	1.05	910	28.44
W7	580.74	605.26	.47	8.21	11.89	2.86	1.92	1.59	631	30.05
W8	524.06	555.56	.53	5.43	12.67	2.69	2.23	.45	580	34.12
W9	526.90	563.93	.54	5.63	12.17	2.57	2.23	.72	1,006	34.69
W10	545.17	570.00	.59	5.53	12.19	2.75	2.03	.95	1,588	41.79
W11	533.82	582.94	.59	6.56	12.59	3.12	1.96	1.00	487	30.44
W12	556.25	591.75	.60	7.24	6.28	2.50	1.77	.44	278	18.53
W13	554.85	567.05	.52	6.65	12.28	2.97	2.10	.85	2,885	37.47
W14	547.36	595.37	.54	8.70	9.19	2.58	2.03	.12	1,058	26.45
W15	553.73	574.15	.35	9.00	12.92	2.65	2.13	1.04	1,473	33.48
W16	562.53	586.82	.62	6.61	14.18	3.10	1.91	.73	2,224	33.70
W17	565.70	571.83	.65	6.10	9.94	2.92	1.92	.97	734	30.58
Mean	544.68	570.44	.50	7.16	11.46	2.81	2.06	.85	1,215.53	32.84

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[1] These 28 schools include one school that has both seventh and tenth grade classrooms. The data from this school is from the seventh grade classrooms only.

[2] For a school to be classified as scoring above predicted on the state assessment tests, it had to score +4 or more across the three assessment tests; for a school to be classified as scoring below predicted, it had to score -4 or less across the three assessment tests.

[3] Scale values for average highest degree faculty received are as follows; one—less than Bachelor's degree; two—Bachelor's degrees; three—Master's degree; four—Master's degree plus thirty hours; five—Educational Specialist; six—Doctoral degree (Ed.D or Ph.D).

[4] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicate the highest prestige; a value of three indicates the lowest prestige.

Table 15. Statistical Means of All Variables in Relation to Predicted State Assessment Scores, Caddo Seventh & Tenth Grade Schools

	Above Predicted	Approximately As Predicted	Below Predicted
Number of Schools	5	17	6
Mothers' Educational Level	3.92	3.85	3.83
Fathers' Educational Level	3.75	3.82	3.83
Number of Siblings	3.61	3.88	3.61
Percentage of Fathers Who Are Professionals	.26	.22	.26
Percentage of Mothers Who Are Not Professionals	.32	.32	.27
Percentage of Students Who Are Black	.56	.58	.50
Faculty's Average Score on NTE Commons	553.53	544.68	546.36
Faculty's Average Score on NTE Area	581.48	570.44	572.55
Percentage of Faculty that Is White	.53	.50	.54
Average Number of Faculty Absences	7.33	7.16	7.01
Mean Total Faculty Experience	10.33	11.46	10.57
Average Highest Degree Faculty Received	2.77	2.81	2.82
Average Prestige* of Institutions Faculty Attended	2.03	2.06	2.07
Average Number of Days Suspended Per Student	.34	.85	.61
Number of Students	544.00	1214.53	934.17
Student Teacher Ratio	25.88	32.84	30.42

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 16

Variables in Full Fifteen Variable Multiple Regression Model, Third Grade Schools Only

Socioeconomic Variables	School Variables
Father's Education	Percentage of Faculty that is White
Number of Siblings	Mean Faculty Score on NTE Commons Exam
Percentage of Mothers Who Are Not Professionals	Mean Faculty Score on NTE Area Exam
Percentage of Fathers Who Are Professionals	Mean Highest Degree Attained By Faculty
Percentage of Student Body That is Black	Mean Faculty Absences
	Mean Total Faculty Experience
	Number of Students
	Student Teacher Ratio
	Principal Percentile Score on Administration Test
	Mean Prestige of Universities* Faculty Attended

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 17

Proportion of Variance Explained Using Multiple Regression Models, Third Grade Schools Only

A. Full Fifteen Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.4490*** (.3802)	.4414* (.2772)	.5546* (.3242)
Reading	.6623*** (.6201)	.4995** (.3523)	.6961*** (.5389)
Writing	.5843*** (.5323)	.5340** (.3969)	.6508** (.4701)

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.4158*** (.3886)	.3567*** (.2940)	.5354*** (.4639)
Reading	.6604*** (.6273)	.1005 (.0587)	.6869*** (.6388)
Writing	.5666*** (.5357)	.1795* (.1208)	.6416*** (.5865)

* $p < .05$
** $p < .01$
*** $p < .001$

* The first number in each cell is the unadjusted r^2; the number in parenthesis is the r^2 adjusted for the number of independent variables and the number of cases in the model.

Table 18

Proportion of Variance Explained Using Stepwise Regression Models, Third Grade Schools Only

A. Full Fifteen Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Additional Variance Explained
Mathematics	.4482	.5546	.1064
Reading	.6652	.6961	.0309
Writing	.5832	.6508	.0676

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Additional Variance Explained
Mathematics	.4158	.5354	.1196
Reading	.6604	.6869	.0265
Writing	.5666	.6416	.0750

Table 19

Variables Retained in Reduced Six Variable Multiple Regression Model, Third Grade Schools Only

Test	Socioeconomic Variables	School Variables
Mathematics	Father's Education Percentage of Mothers Who Are not Professionals	Mean Faculty Score on NTE Common Exam Mean Number of Faculty Absences Student Teacher Ratio Number of Students in School
Reading	Father's Education Number of Siblings Percentage of Mothers Who Are not Professionals Percentage of Students Who Are Black	Mean Faculty Score on NTE Area Exam Number of Students in School
Writing	Number of Siblings Percentage of Fathers Who are Professional Percentage of Students Who are Black	Mean Faculty Score on NTE Commons Exam Mean Faculty Score on NTE Area Exam Number of Students in School

Table 20

Variables in Full Sixteen Variable Multiple Regression Model, All Three Grade Schools Combined

Socioeconomic Variables	School Variables
Father's Education	Percentage of Faculty That is White
Number of Siblings	Mean Faculty Score on NTE Commons Exam
Percentage of Mothers Who Are Not Professionals	Mean Faculty Score on NTE Area Exam
Percentage of Fathers Who Are Professionals	Mean Faculty Absences
Percentage of Student Body That is Black	Mean Faculty Salary
	Mean Faculty Experience in School
	Number of Students in School
	Student-Teacher Ratio
	Principal's Percentile Score on NTE Administration Test
	Mean Highest Degree Attained By Faculty
	Mean Prestige of University* Faculty Attended

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 21

Variables in Full Seventeen Variable Multiple Regression Model, Seventh and Tenth Grade Schools Combined

Socioeconomic Variables	School Variables
Father's Education	Percentage of Faculty That is White
Number of Siblings	Mean Faculty Score on NTE Commons Exam
Percentage of Mothers Who Are Not Professionals	Mean Faculty Score on NTE Area Exam
Percentage of Fathers Who Are Professionals	Mean Highest Degree Attained By Faculty
Percentage of Student Body That is Black	Mean Faculty Absences
	Mean Faculty Salary
	Mean Total Experience of Faculty
	Average Number of Days Suspended Per Student
	Number of Students in School
	Student Teacher Ratio
	Principal Percentile Score on NTE Administration Test
	Mean Prestige of Universities* Faculty Attended

*These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 22

Proportion of Variance Explained Using Multiple Regression Models, All Three Grade Schools Combined[1]

A. Full Sixteen Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.5726*** (.5382)	.4380*** (.3256)	.6847*** (.5839)
Reading	.7348*** (.7134)	.4915*** (.3898)	.7986*** (.7342)
Writing	.6427*** (.6139)	.5884*** (.5061)	.8197*** (.7620)

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.5637*** (.5503)	.3940*** (.3555)	.6656*** (.6327)
Reading	.7315*** (.7144)	.2826*** (.2606)	.7861*** (.7651)
Writing	.6360*** (.6189)	.4359*** (.4095)	.8092*** (.7904)

* $p < .05$
** $p < .01$
*** $p < .001$

[1] The first number in each cell is the unadjusted r^2; the number in parenthesis is the r^2 adjusted for the number of independent variables and the number of cases in the model.

Table 23

Proportion of Variance Explained Using Multiple Regression Models, Seventh and Tenth Grade Schools Combined[1]

A. Full Seventeen Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.7690*** (.7165)	.8466*** (.7238)	.9504*** (.8661)
Reading	.8672*** (.8370)	.8066*** (.6518)	.9461*** (.8543
Writing	.6836*** (.6116)	.7092* (.4766)	.8808* (.6781)

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	School Variables Alone	Both Sets Together
Mathematics	.7370*** (.7041)	.5667*** (.5126)	.8895*** (.8574)
Reading	.8425*** (.8151)	.4919*** (.4513)	.9185*** (.8953)
Writing	.6184*** (.6038)	.4889** (.3728)	.8529*** (.8109)

* $p < .05$
** $p < .01$
*** $p < .001$

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[1] The first number in each cell is the unadjusted r^2; the number in parenthesis is the r^2 adjusted for the number of independent variables and the number of cases in the model.

Table 24

Proportion of Variance Explained Using Stepwise Regression Models, All Three Grade Schools Combined

A. Full Sixteen Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Additional Variance Explained
Mathematics	.5764	.6847	.1083
Reading	.7388	.7986	.0598
Writing	.6455	.8197	.1742

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Additional Variance Explained
Mathematics	.5637	.6656	.1019
Reading	.7315	.7861	.0546
Writing	.6360	.8092	.1732

Table 25

Proportion of Variance Explained Using Stepwise Regression Models, Seventh and Tenth Grade Schools

A. Full Seventeen Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Variance Explained
Mathematics	.7690	.9504	.1814
Reading	.8672	.9461	.0789
Writing	.6836	.8808	.1972

B. Reduced Six Variable Model

Subject Area	Socioeconomic Variables Alone	Socioeconomic Plus School Variables	Additional Variance Explained
Mathematics	.7370	.8895	.1525
Reading	.8425	.9185	.0760
Writing	.6184	.8529	.2345

Table 26

Rotated Factor Matrix,[1] School and Socioeconomic Variables, All Three Grades Combined

Variables	Factors			
	1	2	3	4
Father's Education	(-.81)	.17	.17	.10
Number of Siblings	(.78)	.39	-.07	-.19
Percentage of Mothers Who Are not Professional	(.76)	-.09	-.18	.40
Percentage of Fathers Who are Professional	(-.79)	.24	.31	-.13
Percentage of Student Body That is Black	(.86)	-.08	-.23	.22
Percentage of Faculty That is White	(-.66)	-.06	.52	-.20
Mean Faculty Score on NTE Commons Exam	-.23	.11	(.91)	-.06
Mean Faculty Score on NTE Area Exam	-.19	-.34	(.83)	.05
Mean Faculty Absences	.52	-.32	.05	.47
Mean Faculty Salary	.05	(.85)	-.09	.17
Mean Faculty Experience in School	-.08	(.80)	-.08	.13
Number of Students in School	.01	(.78)	.04	-.19
Student-Teacher Ratio	-.07	(.80)	-.02	-.14
Principal's Percentile Score on NTE Administration Test	-.10	-.16	.19	(-.78)
Mean Highest Degree Attained by Faculty	-.20	(.72)	.07	.09
Mean Prestige of Universities Faculty Attended[2]	.28	-.09	(-.71)	.36

[1] This factor analysis employed the principal axis technique, with factoring stopping at eigenvalues less than 1.00. The factor loadings reported here are based on a varimax rotation of the unrotated factor matrix.

[2] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 27. Rotated Factor Matrix [1], School Variables, Third Grade Schools

	Factors		
Variables	1	2	3
Percentage of Faculty that is White	(.75)	.34	-.07
Mean Faculty Score on NTE Commons Exam	(.89)	-.01	.14
Mean Faculty Score on NTE Area Exam	(.89)	-.20	.05
Mean Highest Degree Attained By Faculty	.28	(.85)	.18
Mean Faculty Absences	-.01	(-.90)	.17
Mean Total Faculty Experience	-.04	(.63)	.49
Number of Students	-.02	.38	.56
Student Teacher Ratio	.26	-.04	(.64)
Principal Percentile Score on NTE Administration Test	.25	.05	(-.61)
Mean Prestige of Universities Faculty Attended[2]	(.-74)	-.26	.18

[1] This factor analysis employed the principal axis technique, with factoring stopping at eigenvalues less than 1.00. The factor loadings reported here are based on a varimax rotation of the unrotated factor matrix.

[2] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 28. Rotated Factor Matrix[1], School Variables, All Three Grades Combined

Variables	Factors 1	2	3
Percentage of Faculty that is White	-.01	(.73)	-.40
Mean Faculty Score on NTE Commons Exam	.13	(.92)	-.05
Mean Faculty Score on NTE Area Exam	-.31	(.86)	.09
Mean Faculty Absences	.33	-.09	(.82)
Mean Faculty Salary	(.85)	-.15	.11
Mean Faculty Experience in school	(.82)	-.08	-.04
Number of Students	(.77)	.05	-.03
Student Teacher Ratio	(.80)	.02	.03
Principal Percentile Score on NTE Administration Test	-.20	.21	(-.64)
Mean Highest Degree Attained by Faculty	(.72)	.06	-.18
Mean Prestige of Universities Faculty Attended[2]	-.08	(-.75)	.37

[1] This factor analysis employed the principal axis technique, with factoring stopping at eigenvalues less than 1.00. The factor loadings reported here are based on a varimax rotation of the unrotated factor matrix.

[2] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 29. Rotated Factor Matrix[1], School Variables, Seventh and Tenth Grade Combined

Variables	Factors		
	1	2	3
Percentage of Faculty that is White	-.16	(-.85)	-.15
Mean Faculty Score on NTE Commons Exam	.12	(-.87)	.27
Mean Faculty Score on NTE Area Exam	-.26	(-.81)	.25
Mean Highest Degree Attained by Faculty	(.79)	-.34	-.09
Mean Faculty Absences	-.22	(.77)	.15
Mean Faculty Salary	(.90)	.25	.11
Mean Total Experience of Faculty	(.89)	.15	.06
Average Number of Days Suspended Per Student	(.65)	.35	.46
Number of Students in School	(.72)	-.18	-.22
Student Teacher Ratio	(.86)	.01	-.18
Principal Percentile Score on NTE Administration Test	-.15	-.32	(.74)
Mean Prestige of Universities Faculty Attended[2]	.01	(.85)	-.35

[1] This factor analysis employed the principal axis technique, with factoring stopping at eigenvalues less than 1.00. The factor loadings reported here are based on a varimax rotation of the unrotated factor matrix.

[2] These data were based on the following: (a) where the faculty received their Bachelor's degrees; and (b) the percentage of graduates from that institution who passed the NTE. Values of one, two or three were assigned to these universities. A value of one indicates the highest prestige; a value of three indicates the lowest prestige.

Table 30

Standardized Beta Weights for Three Factor Scores Predicting State Assessment Tests, Third Grade Schools Only

Factor	Test		
	Mathematics	Reading	Writing
Factor 1	.43	.44	.47
Factor 2	.32	.41	.40
Factor 3	.01	.07	.02

Table 31
Predicted and Actual State Assessment Scores for Schools Included in Questionnaire Study

School Number	Condition		Predicted Scores		
	Predicted[1]	Actual[2]	Mathematics	Reading	Writing
1	H	H	89.63	93.14	89.33
2	H	L	86.49	88.58	88.77
3	H	H	85.75	88.92	87.02
4	H	L	83.93	84.21	82.63
5	H	L	81.13	82.88	82.95
6	L	H	79.49	79.40	81.75
7	L	L	77.88	81.62	81.27
8	L	H	81.97	80.91	77.37
9	L	H	75.82	76.83	76.73
10	L	L	76.19	75.22	77.40

School Number	Condition		Actual Scores		
	Actual	Predicted	Mathematics	Reading	Writing
1	H	H	96.21	98.54	96.78
3	H	H	92.83	92.90	91.67
6	H	L	84.75	83.88	87.08
8	H	L	86.20	86.44	81.67
9	H	L	84.51	84.00	83.02
2	L	H	79.99	85.41	83.69
4	L	H	77.73	79.12	80.27
5	L	H	79.61	79.41	79.79
7	L	L	70.77	76.07	76.66
10	L	L	70.13	70.69	68.78

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[1] H = high predicted score; L = low predicted score.

[2] H = high actual score; L = low actual score.

Table 32
Selected Socioeconomic Characteristics of Schools in Questionnaire Study[1]

		Actual Score			
		High		Low	
Predicted Score	High	POPED	4.32	POPED	4.00
		PCTFPRO	.302	PCTFPRO	.204
		PCTBLACK	.213	PCTBLACK	.485
	Low	POPED	3.69	POPED	3.95
		PCTFPRO	.063	PCTFPRO	.101
		PCTBLACK	.869	PCTBLACK	.834

[1] POPED is father's educational level. Scale values range from 1 (completed less than eight years of school) to 5 (went to college). PCTFPRO is the percentage of fathers who are professional. PCTBLACK is the percentage of students who are black.

Table 33
Significant Predicted Score Main Effects[1]

Variables	F-Value
1. Students' perceptions of educational expectations and personal control:	
a. Educational expectations of parents	13.91***
b. Educational expectations of friends	7.29**
c. You have to be lucky to get good grades.	7.32**
2. Students' perceptions of teachers and of class structure:	
a. Does you teacher think you could finish college?	5.07*
b. Teacher tells students to try for better grades.	9.32**
c. Teacher doesn't care how hard student works, as long as student passes.	10.07**
d. Teacher cares that students learn work.	4.30*
e. Student always sits in same seat.	19.73***
3. Students' perceptions of other students and self:	
a. How many would study hard if work wasn't graded?	8.47**
b. How many tease students who make good grades?	19.82***
c. How many don't care if they get bad grades?	16.52***

* $p < .05$
** $p < .01$
*** $p < .001$

[1] The overall multivariate test for the predicted score main effect was significant [F (41,521) = 5.75, $p < .0001$].

Table 34
Significant Actual Score Main Effects[1]

Variables	F-value
1. Students' perceptions of educational expectations and personal control:	
a. Educational expectations of student.	7.86**
b. People like me do not have a chance in life.	13.38***
c. People like me never do well in school.	5.77*
2. Students' perceptions of teachers and of class structure:	
a. Teacher tells student to try for better grades.	3.98*
b. Student always sits in the same seat.	4.36*
c. Teacher works with the class as a whole.	6.29*
3. Students' perceptions of other students and self:	
a. How much do students learn in this school?	7.69**
b. How does your work compare to friends?	4.45*
c. How many think reading is fun?	7.12**
d. How important is doing well in schoolwork?	4.50*
e. How many work hard to get better grade than friends?	6.22*

* $p < .05$
** $p < .01$
*** $p < .001$

[1] The overall multivariate test for the actual score main effect was significant [$F(41,521) = 2.47$, $p < .0001$].

Table 35

Significant Actual Score X Predicted Score Interaction Effects[1]

Variables	F-value
1. Students' perceptions of educational expectations and personal control:	
a. People like me do not have a chance in life.	33.31***
b. People like me never do well in school.	44.68***
c. You have to be lucky to get good grades.	34.31***
2. Students' perceptions of teachers and of class structure:	
a. Teachers perception of how well you do school work	31.77***
b. Teachers tell students to do extra work.	10.11**
c. Teachers help students who do badly.	12.61***
d. Students always work on some lesson.	11.84***
e. Teachers tell students to try for better grades.	12.59***
f. Students alway sits in same seat.	14.15***
g. Teachers work with the class as a whole	4.43*
h. Teachers don't care how hard student works, as long as student passes	6.42*
3. Students' perceptions of other students and self:	
a. How many would study hard if work wasn't graded?	22.14***
b. How many don't do well because others won't like them?	12.43***
c. How many don't care if they get bad grades?	9.20**

* $p < .05$
** $p < .01$
*** $p < .001$

[1] The overall multivariate test for the actual score x predicted score interaction effect was significant [$F(41,521)=5.29$, $p < .0001$].

Comparison of the Means for Significant Interaction Effects: Students' Perceptions of Educational Expectations and Personal Control

Table 36

People like me do not have a chance in life*

		Actual Score	
		High	Low
Predicted Score	High	2.93	2.10
	Low	2.44	2.62

* The scale values range from 1(strongly agree) to 4 (strongly disagree).

Table 37

People like me will never do well in school*

		Actual Score	
		High	Low
Predicted Score	High	3.29	2.47
	Low	2.53	2.91

* The scale values range from 1 (strongly agree) to 4 (strongly disagree).

Table 38

You have to be lucky to get good grades*

		Actual Score	
		High	Low
Predicted Score	High	2.85	2.30
	Low	2.05	2.60

* The scale values range from 1 (strongly agree) to 4 (strongly disagree).

Comparison of Means for Significant Interaction Effects: Students' Perceptions of Teacher and of Class Structure

Table 39
Teachers' perception of how well you do in school work*

		Actual Score	
		High	Low
Predicted Score	High	2.45	1.97
	Low	1.94	2.50

* The scale values range from 1 (better than all people your age) to 5 (poorer than all people your age).

Table 40
Teachers tell students to do extra work*

		Actual Score	
		High	Low
Predicted Score	High	2.71	2.18
	Low	2.24	2.49

* The scale values range from 1 (almost all the teachers) to 5 (none of the teachers).

Comparison of Means for Significant Interaction Effects: Students' Perceptions of Teacher and of Class Structure (cont.)

Table 41
Teachers help students who do badly*

		Actual Score	
		High	Low
Predicted	High	2.01	1.63
Score	Low	1.53	1.88

* The scale values range from 1 (always try to help) to 5 (never try to help).

Table 42
Students always work on same lesson*

		Actual Score	
		High	Low
Predicted	High	2.77	2.38
Score	Low	2.39	2.74

* The scale values range from 1 (always) to 5 (never).

Comparison of Means for Significant Interaction Effects: Students' Perceptions of Teacher and of Class Structure (Cont.)

Table 43
Teachers tell students to try for better grades*

		Actual Score	
		High	Low
Predicted	High	2.97	3.72
Score	Low	3.87	3.66

* The scale values range from 1 (none of the teachers) to 5 (almost all of the teachers).

Table 44
Students always sit in same seats*

		Actual Score	
		High	Low
Predicted	High	2.96	2.29
Score	Low	2.00	2.19

* The scale values range from 1 (always) to 5 (never).

Comparison to Means for Significant Interaction Effects: Students' Perceptions of Teacher and of Class Structure (cont.)

Table 45
Teacher works with the class as a whole*

		Actual Score	
		High	Low
Predicted	High	3.11	2.61
Score	Low	2.76	2.71

* The scales range from 1 (always) to 5 (never).

Table 46
Teachers do not care how hard student works as long as student passes*

		Actual Score	
		High	Low
Predicted	High	3.29	2.90
Score	Low	2.50	2.79

* The scale values range from 1 (almost all the teachers) to 5 (none of the teachers).

Comparison of the Means for Significant Interaction Effects: Students' Perceptions of Other Students and Self

Table 47

How many would study hard if work wasn't graded*

		Actual Score	
		High	Low
Predicted	High	3.53	2.80
Score	Low	2.52	3.05

* The scale values range from 1 (almost all of the students) to 5 (none of the students).

Table 48

How many don't do well because others won't like them*

		Actual Score	
		High	Low
Predicted	High	3.59	3.29
Score	Low	2.99	3.52

* The scale values range from 1 (almost all of the students) to 5 (none of the students).

Table 49

How many don't care if they get bad grades*

		Actual Score	
		High	Low
Predicted	High	4.05	3.65
Score	Low	3.26	3.53

* The scale values range from 1 (almost all of the students) to 5 (none of the students).

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Appendix One

Data Elements Included in the Louisiana School Effectiveness Study

I. Faculty Characteristics

- Total count
- Sexual composition
- Racial composition
- Experience -- total
- Experience -- parish
- Experience -- outside parish
- Experience -- current school
- NTE common score
- NTE area score
- NTE composite score
- NTE common percentile
- NTE area percentile
- NTE composite percentile
- Highest degree attained
- Explained absences
- Unexplained absences
- Annual salary amount
- Daily salary amount
- Age
- Average prestige of institutions that faculty attended

II. Principal's Characteristics

- Administrator interview rating
- NTE administrator subtest score
- Race
- Experience -- current school

III. Students' Characteristics

- Total count
- Sexual composition
- Percentage that dropout
- Mean number of days suspended

IV. Other School Variables

- Student teacher ratio
- Percentage in special education

V. Students' Socioeconomic Characteristics

- Mother's education
- Father's education
- Number of siblings
- Racial composition
- Percentage of professional mothers

V. Students' Socioeconomic Characteristics (cont)

Percentage of professional fathers
Percentage of nonprofessional fathers

VI. Dependent Variables

Score on math test from Statewide Assessment
Score on reading test from Statewide Assessment
Score on writing test from Statewide Assessment

Appendix Two

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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

VARIABLE      N              MEAN             STD DEV                 SUM              MINIMUM            MAXIMUM


MSEX         46        0.07241257          0.04473107          3.33097817                    0         0.20000000
MRACE        46        0.48933456          0.13142921         22.50938957           0.21052632         0.81818182
MCADDEXP     46        8.77799135          2.00187599        403.78760221           4.50000000        15.06896552
MNITECHSC    46      544.99258314         24.14570112      25069.65882428         498.90909091       617.73333333
MNITEARSC    46      590.74463886         25.00009594      27174.25338737         537.65384615       666.20000000
MADPERAT     46        1.09041045          0.09060613         50.15888087           1.00000000         1.40000000
MNIDEGRE     46        2.32494352          0.24425043        106.94740212           1.57575758         2.77142857
MABSEXP      46        7.78584121          1.49525622        358.14869574           4.88571429        10.71428571
MABSUNEX     46        0.04951876          0.09893550          2.27786311                    0         0.56521739
MSALAMT     -46    17137.71713899        451.25938472     788334.98839354       16121.17647059     18260.18518519
MTOTEXP      46       10.18069349          2.00747385        468.31190060           5.95454545        16.48275862
MAGE         46       38.26973537          2.36797540       1760.40782717          31.38095238        44.34482759
MSCHEXP      46        5.23414369          1.19152367        240.77060981           3.45454545         9.10344828
MOMED        46        3.86366284          0.32785801        177.72849047           3.10526316         4.50943396
POPED        46        3.88156419          0.36019050        178.55195283           3.18181818         4.64150943
SIBS         46        3.09042673          0.45932252        142.15972159           2.32941176         4.09859155
PCTMPRO      46        0.25769975          0.13824676         11.85418851           0.03571429         0.67924528
PCTMNPRO     46        0.33336313          0.12974670         15.33470379           0.07547170         0.61971831
PCTFPRO      46        0.19085376          0.16549578          8,77927309                    0         0.67924528
PCTFNPRO     46        0.60058132          0.12465747         27.62674095           0.26415094         0.85000000
SCHSEX       46        0.48862231          0.03292748         22.47662624           0.37022901         0.55277281
SCHRACE      46        0.55854620          0.37823058         25.69312522           0.01342282         1.00000000
SCHSPEED     46        0.05315082          0.07223925          2.44493782                    0         0.37022901
SCHDROP      46        0.00028949          0.00081281          0.01331639                    0         0.00381679
SCHDYSUS     46        0.07988684          0.10029819          3.67479442                    0         0.43525180
TCOUNT       46       19.95652174          7.77733608        918.00000000           7.00000000        40.00000000
SCOUNT       46      485.17391304        205.66794212      22318.00000000         187.00000000      1058.00000000
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                        S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

VARIABLE      N              MEAN             STD DEV                SUM            MINIMUM            MAXIMUM

STUTEAR      46       24.34461321          3.81968797      1119.85220745        17.71428571        33.14285714

PRSCHEX      45        6.24444444          5.56023036       281.00000000         1.00000000        23.00000000

PRADMPER     45        3.44444444          3.07892806       155.00000000                  0         9.00000000

LDEDEGRE     46        2.64538606          0.15170117       121.68775897         2.31250000         2.97297297

SCHPREST     46        2.10193769          0.17344574        96.68913357         1.77272727         2.41176471


                 CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

             MSEX    MRACE MCADDEXP MNTECHSC MNTEARSC MADPERAT MHIDEGRE  MABSEXP MABSUNEX  MSALAMT  MTOTEXP     MAGE  MSCHEXP

MSEX      1.00000 -0.00819 -0.10405 -0.30282 -0.17918  0.04402 -0.06576 -0.07266 -0.31753 -0.27641 -0.12616 -0.11548  0.02278
           0.0000   0.9569   0.4913   0.0408   0.2335   0.7714   0.6642   0.6313   0.0315   0.0630   0.4034   0.4447   0.8805
               46       46       46       46       46       46       46       46       46       46       46       46       46

MRACE    -0.00819  1.00000  0.09524 -0.55776 -0.51823 -0.08899 -0.48602  0.28557 -0.12589  0.25597  0.00621 -0.05710  0.06251
           0.9569   0.0000   0.5290   0.0001   0.0002   0.5565   0.0006   0.0544   0.4045   0.0860   0.9673   0.7062   0.6798
               46       46       46       46       46       46       46       46       46       46       46       46       46

MCADDEXP -0.10405  0.09524  1.00000  0.12107 -0.10469 -0.31256  0.52433 -0.46218 -0.16514  0.78487  0.96119  0.80754  0.81576
           0.4913   0.5290   0.0000   0.4228   0.4887   0.0344   0.0002   0.0012   0.2728   0.0001   0.0001   0.0001   0.0001
               46       46       46       46       46       46       46       46       46       46       46       46       46

MNTECHSC -0.30282 -0.55776  0.12107  1.00000  0.82825 -0.03652  0.25766 -0.00844  0.30988  0.14598  0.16432  0.32622  0.04014
           0.0408   0.0001   0.4228   0.0000   0.0001   0.8096   0.0839   0.9556   0.0361   0.3330   0.2752   0.0269   0.7911
               46       46       46       46       46       46       46       46       46       46       46       46       46

MNTEARSC -0.17918 -0.51823 -0.10469  0.82825  1.00000  0.07390  0.11498  0.12730  0.30036 -0.09401 -0.05988  0.11786 -0.17390
           0.2335   0.0002   0.4887   0.0001   0.0000   0.6255   0.4467   0.3992   0.0425   0.5343   0.6926   0.4354   0.2477
               46       46       46       46       46       46       46       46       46       46       46       46       46

MADPERAT  0.04402 -0.08899 -0.31256 -0.03652  0.07390  1.00000  0.00400 -0.17012 -0.03953 -0.38680 -0.31696 -0.39908 -0.36297
           0.7714   0.5565   0.0344   0.8096   0.6255   0.0000   0.9790   0.2584   0.7942   0.0079   0.0319   0.0060   0.0132
               46       46       46       46       46       46       46       46       46       46       46       46       46

MHIDEGRE -0.06576 -0.48602  0.52433  0.25766  0.11498  0.00400  1.00000 -0.66157 -0.08189  0.33339  0.59532  0.30974  0.38447
           0.6642   0.0006   0.0002   0.0839   0.4467   0.9790   0.0000   0.0001   0.5885   0.0236   0.0001   0.0362   0.0083
               46       46       46       46       46       46       46       46       46       46       46       46       46

MABSEXP  -0.07266  0.28557 -0.46218 -0.00844  0.12730 -0.17012 -0.66157  1.00000  0.30803 -0.14571 -0.43586 -0.18119 -0.33778
           0.6313   0.0544   0.0012   0.9556   0.3992   0.2584   0.0001   0.0000   0.0373   0.3339   0.0025   0.2282   0.0217
               46       46       46       46       46       46       46       46       46       46       46       46       46

MABSUNEX -0.31753 -0.12589 -0.16514  0.30988  0.30036 -0.03953 -0.08189  0.30803  1.00000  0.13645 -0.08059  0.02381 -0.18650
           0.0315   0.4045   0.2728   0.0361   0.0425   0.7942   0.5885   0.0373   0.0000   0.3659   0.5944   0.8752   0.2146
               46       46       46       46       46       46       46       46       46       46       46       46       46

MSALAMT  -0.27641  0.25597  0.78487  0.14598 -0.09401 -0.38680  0.33339 -0.14571  0.13645  1.00000  0.77761  0.71217  0.61838
           0.0630   0.0860   0.0001   0.3330   0.5343   0.0079   0.0236   0.3339   0.3659   0.0000   0.0001   0.0001   0.0001
               46       46       46       46       46       46       46       46       46       46       46       46       46
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                                      S T A T I S T I C A L   A N A L Y S I S   S Y S T E M      15:18 FRIDAY, JUNE 11, 1982

                             CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

              MSEX     MRACE  MCADDEXP  MNTECHSC  MNTEARSC  MADPERAT  MHIDEGRE   MABSEXP  MABSUNEX   MSALANT   MTOTEXP      MAGE   MSCHEXP

MTOTEXP   -0.12616   0.00621   0.96119   0.16432  -0.05988  -0.31696   0.59532  -0.43586  -0.08059   0.77761   1.00000   0.84238   0.75464
            0.4034    0.9673    0.0001    0.2752    0.6926    0.0319    0.0001    0.0025    0.5944    0.0001    0.0000    0.0001    0.0001
                46        46        46        46        46        46        46        46        46        46        46        46        46

MAGE      -0.11548  -0.05710   0.80754   0.32622   0.11786  -0.39908   0.30974  -0.18119   0.02381   0.71217   0.84238   1.00000   0.68802
            0.4447    0.7062    0.0001    0.0269    0.4354    0.0060    0.0362    0.2282    0.8752    0.0001    0.0001    0.0000    0.0001
                46        46        46        46        46        46        46        46        46        46        46        46        46

MSCHEXP    0.02278   0.06251   0.81576   0.04014  -0.17390  -0.36297   0.38447  -0.33778  -0.18650   0.61838   0.75464   0.68802   1.00000
            0.8805    0.6798    0.0001    0.7911    0.2477    0.0132    0.0083    0.0217    0.2146    0.0001    0.0001    0.0001    0.0000
                46        46        46        46        46        46        46        46        46        46        46        46        46

MOMED     -0.26336  -0.39225   0.28091   0.27049   0.32155  -0.11263   0.57223  -0.12523   0.14943   0.15728   0.40249   0.22439   0.16865
            0.0770    0.0070    0.0586    0.0690    0.0293    0.4561    0.0001    0.4070    0.3216    0.2965    0.0056    0.1338    0.2626
                46        46        46        46        46        46        46        46        46        46        46        46        46

POPED     -0.27405  -0.43185   0.30600   0.33529   0.31930  -0.17027   0.60185  -0.21822   0.13644   0.19431   0.43069   0.22777   0.18316
            0.0653    0.0027    0.0386    0.0227    0.0305    0.2579    0.0001    0.1451    0.3659    0.1957    0.0028    0.1279    0.2231
                46        46        46        46        46        46        46        46        46        46        46        46        46

SIBS       0.00718   0.52219  -0.29270  -0.22339  -0.12041   0.07811  -0.65727   0.42409  -0.01258  -0.12252  -0.36783  -0.15532  -0.28430
            0.9622    0.0002    0.0484    0.1356    0.4254    0.6059    0.0001    0.0033    0.9339    0.4173    0.0119    0.3027    0.0555
                46        46        46        46        46        46        46        46        46        46        46        46        46

PCTMPRO   -0.20797  -0.42630   0.31040   0.29558   0.26384   0.03964   0.67566  -0.40446   0.01845   0.10541   0.38424   0.20665   0.16420
            0.1655    0.0031    0.0358    0.0461    0.0764    0.7937    0.0001    0.0053    0.9032    0.4857    0.0084    0.1682    0.2755
                46        46        46        46        46        46        46        46        46        46        46        46        46

PCTMNPRO  -0.04037   0.52310  -0.14368  -0.25932  -0.22242   0.09403  -0.50644   0.38851   0.09108   0.07565  -0.18661   0.00739  -0.04286
            0.7900    0.0002    0.3408    0.0818    0.1374    0.5342    0.0003    0.0076    0.5472    0.6173    0.2143    0.9611    0.7773
                46        46        46        46        46        46        46        46        46        46        46        46        46

PCTFPRO   -0.21784  -0.59905   0.26523   0.40415   0.37310   0.02653   0.65593  -0.35900   0.08722   0.11732   0.35832   0.20938   0.06552
            0.1459    0.0001    0.0748    0.0053    0.0107    0.8611    0.0001    0.0143    0.5644    0.4375    0.0145    0.1625    0.6653
                46        46        46        46        46        46        46        46        46        46        46        46        46

PCTFNPRO   0.34177   0.14902  -0.23492  -0.28305  -0.28766  -0.03829  -0.19723   0.04146  -0.09567  -0.12605  -0.28389  -0.22779   0.00503
            0.0201    0.3230    0.1161    0.0566    0.0526    0.8006    0.1889    0.7844    0.5271    0.4039    0.0559    0.1279    0.9735
                46        46        46        46        46        46        46        46        46        46        46        46        46

SCHSEX    -0.04581   0.11476   0.29651  -0.00752  -0.14756  -0.09083   0.27232  -0.32032  -0.12270   0.04460   0.29172   0.07093   0.34058
            0.7624    0.4476    0.0454    0.9605    0.3278    0.5483    0.0671    0.0300    0.4166    0.7685    0.0492    0.6395    0.0206
                46        46        46        46        46        46        46        46        46        46        46        46        46

SCHRACE    0.02608   0.76405  -0.17835  -0.39853  -0.27245   0.09363  -0.67670   0.45733  -0.00173   0.02341  -0.25852  -0.12766  -0:11763
            0.8634    0.0001    0.2357    0.0061    0.0670    0.5360    0.0001    0.0014    0.9909    0.8773    0.0828    0.3978    0.4363
                46        46        46        46        46        46        46        46        46        46        46        46        46

SCHSPEED  -0.25255  -0.35404  -0.07759   0.38144   0.36264  -0.11125  -0.01938   0.21014   0.28596   0.06363  -0.07039   0.16191  -0.09781
            0.0904    0.0158    0.6083    0.0089    0.0133    0.4617    0.8983    0.1610    0.0540    0.6744    0.6420    0.2824    0.5178
                46        46        46        46        46        46        46        46        46        46        46        46        46
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                              S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

                         CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

               MSEX     MRACE MCADDEXP MNTECHSC MNTEARSC MADPERAT MHIDEGRE  MABSEXP MABSUNEX  MSALAMT  MTOTEXP     MAGE  MBCHEXP

SCHDROP     0.01620 -0.24908 -0.01233  0.09567  0.11381  0.08034  0.03429 -0.08245 -0.16967 -0.04651  0.01500  0.09960 -0.05008
             0.9149   0.0951   0.9352   0.5271   0.4514   0.5956   0.8210   0.5859   0.2596   0.7589   0.9212   0.5102   0.7014
                 46       46       46       46       46       46       46       46       46       46       46       46       46

SCHDYSUS    0.15774 -0.03096 -0.18566 -0.05387 -0.16455  0.16398 -0.12074 -0.04859 -0.23279 -0.27185 -0.25951 -0.21860 -0.06620
             0.2951   0.8382   0.2167   0.7222   0.2745   0.2762   0.4241   0.7484   0.1195   0.0676   0.0816   0.1444   0.6620
                 46       46       46       46       46       46       46       46       46       46       46       46       46

TCOUNT     -0.04807 -0.09541  0.17970 -0.07934 -0.14169 -0.02025  0.24518 -0.21982 -0.19584 -0.05239  0.23527  0.12068  0.10297
             0.7511   0.5282   0.2321   0.6002   0.3476   0.8937   0.1005   0.1421   0.1921   0.7295   0.1155   0.4243   0.4959
                 46       46       46       46       46       46       46       46       46       46       46       46       46

SCOUNT     -0.08976 -0.13463  0.21055 -0.03940 -0.09928 -0.05545  0.29226 -0.21880 -0.15837 -0.02224  0.27620  0.14955  0.11912
             0.5530   0.3724   0.1602   0.7949   0.5115   0.7144   0.0487   0.1440   0.2932   0.8834   0.0632   0.3212   0.4304
                 46       46       46       46       46       46       46       46       46       46       46       46       46

STUTEAR    -0.29003 -0.11679  0.13238  0.18670  0.17989 -0.18095  0.18378  0.05422  0.25725  0.17822  0.17598  0.10525  0.09671
             0.0443   0.4396   0.3805   0.2141   0.2316   0.2288   0.2215   0.7204   0.0844   0.2360   0.2420   0.4863   0.5226
                 46       46       46       46       46       46       46       46       46       46       46       46       46

PRSCHEX    -0.10579 -0.00559  0.24482  0.02485 -0.00984 -0.04317 -0.03199 -0.01433 -0.17935  0.21195  0.16836  0.22377  0.24822
             0.4892   0.9709   0.1050   0.8713   0.9488   0.7783   0.8347   0.9256   0.2384   0.1622   0.2689   0.1395   0.1002
                 45       45       45       45       45       45       45       45       45       45       45       45       45

PRADMPER   -0.00197 -0.12149 -0.27043  0.09504  0.18195 -0.20486 -0.00856 -0.14496  0.13252 -0.19916 -0.25004 -0.21760 -0.25090
             0.9898   0.4266   0.0724   0.5346   0.2316   0.1770   0.9555   0.3421   0.3855   0.1897   0.0976   0.1510   0.0964
                 45       45       45       45       45       45       45       45       45       45       45       45       45

LDEDEGRE   -0.08698 -0.04306  0.53523  0.03571 -0.00304 -0.03838  0.58938 -0.33917 -0.10749  0.54398  0.51161  0.34990  0.33598
             0.5654   0.7763   0.0001   0.8137   0.9840   0.8001   0.0001   0.0211   0.4771   0.0001   0.0003   0.0171   0.0224
                 46       46       46       46       46       46       46       46       46       46       46       46       46

SCHPREST    0.17422  0.60629  0.03772 -0.57941 -0.47017 -0.16590 -0.32734  0.21990 -0.03646  0.15173 -0.02580 -0.01005  0.16868
             0.2469   0.0001   0.8034   0.0001   0.0010   0.2705   0.0264   0.1420   0.8099   0.3141   0.8649   0.9471   0.2624
                 46       46       46       46       46       46       46       46       46       46       46       46       46

              MOMED    POPED     SIBS  PCTMPRO PCTMNPRO  PCTFPRO PCTFNPRO   SCHSEX  SCHRACE SCHSPEED  SCHDROP SCHDYSUS   TCOUNT

MSEX       -0.26336 -0.27405  0.00718 -0.20797 -0.04037 -0.21784  0.34177 -0.04581  0.02608 -0.25255  0.01620  0.15774 -0.04807
             0.0770   0.0653   0.9622   0.1655   0.7900   0.1459   0.0201   0.7624   0.8634   0.0904   0.9149   0.2951   0.7511
                 46       46       46       46       46       46       46       46       46       46       46       46       46

MRACE      -0.39225 -0.43185  0.52219 -0.42630  0.52310 -0.59905  0.14902  0.11476  0.76405 -0.35404 -0.24908 -0.03096 -0.09541
             0.0070   0.0027   0.0002   0.0031   0.0002   0.0001   0.3230   0.4476   0.0001   0.0158   0.0951   0.8382   0.5282
                 46       46       46       46       46       46       46       46       46       46       46       46       46

MCADDEXP    0.28091  0.30600 -0.29270  0.31040 -0.14368  0.26523 -0.23492  0.29651 -0.17835 -0.07759 -0.01233 -0.18566  0.17970
             0.0586   0.0386   0.0484   0.0358   0.3408   0.0748   0.1161   0.0454   0.2357   0.6083   0.9352   0.2167   0.2321
                 46       46       46       46       46       46       46       46       46       46       46       46       46

MNTECHSC    0.27049  0.33529 -0.22339  0.29558 -0.25932  0.40415 -0.28305 -0.00752 -0.39853  0.38144  0.09567 -0.05387 -0.07934
             0.0690   0.0227   0.1356   0.0461   0.0818   0.0053   0.0566   0.9605   0.0061   0.0089   0.5271   0.7222   0.6002
                 46       46       46       46       46       46       46       46       46       46       46       46       46
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                                          S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                                 CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

               MOMED      POPED       SIBS    PCTMPRO   PCTMNPRO    PCTFPRO   PCTFNPRO     SCHSEX    SCHRACE   SCHSPEED    SCHDROP   SCHDYSUS     TCOUNT

MNTEARSC     0.32155    0.31930   -0.12041    0.26384   -0.22242    0.37310   -0.28766   -0.14756   -0.27245    0.36264    0.11381   -0.16455   -0.14169
              0.0293     0.0305     0.4254     0.0764     0.1374     0.0107     0.0526     0.3278     0.0670     0.0133     0.4514     0.2745     0.3476
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MADPERAT    -0.11263   -0.17027    0.07811    0.03964    0.09403    0.02653   -0.03829   -0.09083    0.09363   -0.11125    0.08034    0.16398   -0.02025
              0.4561     0.2579     0.6059     0.7937     0.5342     0.8611     0.8006     0.5483     0.5360     0.4617     0.5956     0.2762     0.8937
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MNIDEGRE     0.57223    0.60185   -0.65727    0.67566   -0.50644    0.65593   -0.19723    0.27232   -0.67670   -0.01938    0.03429   -0.12074    0.24518
              0.0001     0.0001     0.0001     0.0001     0.0003     0.0001     0.1889     0.0671     0.0001     0.8983     0.8210     0.4241     0.1005
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MABSEXP     -0.12523   -0.21822    0.42409   -0.40446    0.38851   -0.35900    0.04146   -0.32032    0.45733    0.21014   -0.08245   -0.04859   -0.21982
              0.4070     0.1451     0.0033     0.0053     0.0076     0.0143     0.7844     0.0300     0.0014     0.1610     0.5859     0.7484     0.1421
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MABSUNEX     0.14943    0.13644   -0.01258    0.01845    0.09108    0.08722   -0.09567   -0.12270   -0.00173    0.28596   -0.16967   -0.23279   -0.19584
              0.3216     0.3659     0.9339     0.9032     0.5472     0.5644     0.5271     0.4166     0.9909     0.0540     0.2596     0.1195     0.1921
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MSALAMT      0.15728    0.19431   -0.12252    0.10541    0.07565    0.11732   -0.12605    0.04460    0.02341    0.06363   -0.04651   -0.27185   -0.05239
              0.2965     0.1957     0.4173     0.4857     0.6173     0.4375     0.4039     0.7685     0.8773     0.6744     0.7589     0.0676     0.7295
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MTOTEXP      0.40249    0.43069   -0.36783    0.38424   -0.18661    0.35832   -0.28389    0.29172   -0.25852   -0.07039    0.01500   -0.25951    0.23527
              0.0056     0.0028     0.0119     0.0084     0.2143     0.0145     0.0559     0.0492     0.0828     0.6420     0.9212     0.0816     0.1155
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MAGE         0.22439    0.22777   -0.15532    0.20665    0.00739    0.20938   -0.22779    0.07093   -0.12766    0.16191    0.09960   -0.21860    0.12068
              0.1338     0.1279     0.3027     0.1682     0.9611     0.1625     0.1279     0.6395     0.3978     0.2824     0.5102     0.1444     0.4243
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MSCHEXP      0.16865    0.18316   -0.28430    0.16420   -0.04286    0.06552    0.00503    0.34058   -0.11763   -0.09781   -0.05808   -0.06620    0.10297
              0.2626     0.2231     0.0555     0.2755     0.7773     0.6653     0.9735     0.0206     0.4363     0.5178     0.7014     0.6620     0.4959
                  46         46         46         46         46         46         46         46         46         46         46         46         46

MOMED        1.00000    0.91929   -0.57713    0.77250   -0.50789    0.74564   -0.51156    0.21169   -0.52398    0.07010    0.05304   -0.41851    0.29100
              0.0000     0.0001     0.0001     0.0001     0.0003     0.0001     0.0003     0.1579     0.0002     0.6434     0.7263     0.0038     0.0498
                  46         46         46         46         46         46         46         46         46         46         46         46         46

POPED        0.91929    1.00000   -0.63953    0.74381   -0.60759    0.79670   -0.50020    0.24629   -0.64047    0.12361    0.07123   -0.35269    0.32319
              0.0001     0.0000     0.0001     0.0001     0.0001     0.0001     0.0004     0.0989     0.0001     0.4131     0.6380     0.0162     0.0285
                  46         46         46         46         46         46         46         46         46         46         46         46         46

SIBS        -0.57713   -0.63953    1.00000   -0.57481    0.57768   -0.59266    0.15056   -0.17183    0.66745   -0.09572    0.01085    0.10015   -0.16761
              0.0001     0.0001     0.0000     0.0001     0.0001     0.0001     0.3179     0.2535     0.0001     0.5269     0.9429     0.5078     0.2655
                  46         46         46         46         46         46         46         46         46         46         46         46         46

PCTMPRO      0.77250    0.74381   -0.57481    1.00000   -0.61994    0.83424   -0.51074    0.31340   -0.55808    0.01071    0.07049   -0.25308    0.12418
              0.0001     0.0001     0.0001     0.0000     0.0001     0.0001     0.0003     0.0339     0.0001     0.9437     0.6416     0.0897     0.4110
                  46         46         46         46         46         46         46         46         46         46         46         46         46
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                       CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              MOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYSUS    TCOUNT

PCTMNPRO -0.50789  -0.60759   0.57768  -0.61994   1.00000  -0.74701   0.46411  -0.18400   0.81528  -0.06265  -0.08332  -0.06266  -0.03880
           0.0003    0.0001    0.0001    0.0001    0.0000    0.0001    0.0012    0.2209    0.0001    0.6791    0.5820    0.6791    0.7980
               46        46        46        46        46        46        46        46        46        46        46        46        46

PCTFPRO   0.74564   0.79670  -0.59266   0.83424  -0.74701   1.00000  -0.65221   0.07832  -0.74183   0.22318   0.20895  -0.20094   0.14212
           0.0001    0.0001    0.0001    0.0001    0.0001    0.0000    0.0001    0.6049    0.0001    0.1360    0.1634    0.1806    0.3461
               46        46        46        46        46        46        46        46        46        46        46        46        46

PCTFNPRO -0.51156  -0.50020   0.15056  -0.51074   0.46411  -0.65221   1.00000  -0.05639   0.26479  -0.12172  -0.19723   0.20485  -0.07767
           0.0003    0.0004    0.3179    0.0003    0.0012    0.0001    0.0000    0.7097    0.0753    0.4203    0.1889    0.1720    0.6079
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCHSEX    0.21169   0.24629  -0.17183   0.31340  -0.18400   0.07832  -0.05639   1.00000  -0.11219  -0.62383  -0.46581  -0.17411   0.12041
           0.1579    0.0989    0.2535    0.0339    0.2209    0.6049    0.7097    0.0000    0.4579    0.0001    0.0011    0.2472    0.4254
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCHRACE  -0.52398  -0.64047   0.66745  -0.55808   0.81528  -0.74183   0.26479  -0.11219   1.00000  -0.22961  -0.14262  -0.08693  -0.15629
           0.0002    0.0001    0.0001    0.0001    0.0001    0.0001    0.0753    0.4579    0.0000    0.1248    0.3444    0.5657    0.2996
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCHSPEED  0.07010   0.12361  -0.09572   0.01071  -0.06265   0.22318  -0.12172  -0.62383  -0.22961   1.00000   0.45382   0.18604  -0.19109
           0.6434    0.4131    0.5269    0.9437    0.6791    0.1360    0.4203    0.0001    0.1248    0.0000    0.0015    0.2157    0.2033
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCHDROP   0.05304   0.07123   0.01085   0.07049  -0.08332   0.20895  -0.19723  -0.46581  -0.14262   0.45382   1.00000   0.42777   0.04001
           0.7263    0.6380    0.9429    0.6416    0.5820    0.1634    0.1889    0.0011    0.3444    0.0015    0.0000    0.0030    0.7918
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCHDYSUS -0.41051  -0.35269   0.10015  -0.25308  -0.06266  -0.20094   0.20485  -0.17411  -0.08693   0.18604   0.42777   1.00000  -0.03829
           0.0038    0.0162    0.5078    0.0897    0.6791    0.1806    0.1720    0.2472    0.5657    0.2157    0.0030    0.0000    0.8005
               46        46        46        46        46        46        46        46        46        46        46        46        46

TCOUNT    0.29100   0.32319  -0.16761   0.12418  -0.03880   0.14212  -0.07767   0.12041  -0.15629  -0.19109   0.04001  -0.03829   1.00000
           0.0498    0.0285    0.2655    0.4110    0.7980    0.3461    0.6079    0.4254    0.2996    0.2033    0.7918    0.8005    0.0000
               46        46        46        46        46        46        46        46        46        46        46        46        46

SCOUNT    0.39358   0.44547  -0.23744   0.20143  -0.15422   0.24112  -0.12216   0.08180  -0.28952  -0.07362   0.07168  -0.04515   0.95177
           0.0068    0.0019    0.1121    0.1795    0.3062    0.1065    0.4187    0.5889    0.0510    0.6268    0.6359    0.7657    0.0001
               46        46        46        46        46        46        46        46        46        46        46        46        46

STUTEAR   0.42512   0.50540  -0.30871   0.23967  -0.33661   0.33889  -0.16543  -0.15399  -0.39404   0.45347   0.14177  -0.02291  -0.02271
           0.0032    0.0003    0.0368    0.1087    0.0222    0.0212    0.2719    0.3069    0.0067    0.0016    0.3473    0.8799    0.8809
               46        46        46        46        46        46        46        46        46        46        46        46        46

PRSCHEX  -0.11835  -0.06788  -0.00699  -0.14070   0.24371   0.02927   0.16123  -0.27015   0.02407   0.28900   0.14096  -0.04165   0.08626
           0.4388    0.6577    0.9637    0.3566    0.1067    0.8486    0.2900    0.0727    0.8753    0.0542    0.3557    0.7859    0.5732
               45        45        45        45        45        45        45        45        45        45        45        45        45

PRADMPER -0.03427   0.04095  -0.09344   0.12466  -0.27852   0.06654  -0.02730   0.04265  -0.17090   0.04782  -0.04431   0.04581  -0.19142
           0.8232    0.7894    0.5415    0.4146    0.0639    0.6641    0.8587    0.7809    0.2617    0.7551    0.7726    0.7651    0.2078
               45        45        45        45        45        45        45        45        45        45        45        45        45
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                                   S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

                        CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

             MOMED     POPED      SIBS  PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYSUS    TCOUNT

LDEDEGRE   0.25239   0.20043  -0.25277  0.37548  -0.10922   0.31983  -0.11503  -0.12114  -0.18049   0.05940   0.05101  -0.13762   0.07688
            0.0903    0.1817    0.0901   0.0101    0.4700    0.0303    0.4465    0.4226    0.2300    0.6950    0.7364    0.3617    0.6116
                46        46        46       46        46        46        46        46        46        46        46        46        46

SCHPREST  -0.23052  -0.28626   0.23651 -0.39679   0.44805  -0.44899   0.26404  -0.00494   0.47336  -0.17584  -0.25217  -0.10633  -0.03706
            0.1232    0.0538    0.1135   0.0063    0.0018    0.0018    0.0762    0.9740    0.0009    0.2424    0.0909    0.4818    0.8068
                46        46        46       46        46        46        46        46        46        46        46        46        46

            SCOUNT   STUTEAR   PRSCHEX PRADMPER  LDEDEGRE  SCHPREST


MSEX      -0.08976  -0.29803  -0.10579 -0.00197  -0.08698   0.17422
            0.5530    0.0443    0.4892   0.9898    0.5654    0.2469
                46        46        45       45        46        46

MRACE     -0.13463  -0.11679  -0.00559 -0.12149  -0.04306   0.60629
            0.3724    0.4396    0.9709   0.4266    0.7763    0.0001
                46        46        45       45        46        46

MCADDEXP   0.21055   0.13238   0.24482 -0.27043   0.53523   0.03772
            0.1602    0.3805    0.1050   0.0724    0.0001    0.8034
                46        46        45       45        46        46

MNTECHSC  -0.03940   0.18670   0.02485  0.09504   0.03571  -0.57941
            0.7949    0.2141    0.8713   0.5346    0.8137    0.0001
                46        46        45       45        46        46

MNTEARSC  -0.09928   0.17989  -0.00984  0.18195  -0.00304  -0.47017
            0.5115    0.2316    0.9488   0.2316    0.9840    0.0010
                46        46        45       45        46        46

MADPERAT  -0.05545  -0.18095  -0.04317 -0.20486  -0.03838  -0.16590
            0.7144    0.2288    0.7783   0.1770    0.8001    0.2705
                46        46        45       45        46        46

MHIDEGRE   0.29226   0.18378  -0.03199 -0.00856   0.58938  -0.32734
            0.0487    0.2215    0.8347   0.9555    0.0001    0.0264
                46        46        45       45        46        46

MABSEXP   -0.21880   0.05422  -0.01433 -0.14496  -0.33917   0.21990
            0.1440    0.7204    0.9256   0.3421    0.0211    0.1420
                46        46        45       45        46        46

MABSUNEX  -0.15837   0.25725  -0.17935  0.13252  -0.10749  -0.03646
            0.2932    0.0844    0.2384   0.3855    0.4771    0.8099
                46        46        45       45        46        46

MSALAMT   -0.02224   0.17822   0.21195 -0.19916   0.54398   0.15173
            0.8834    0.2360    0.1622   0.1897    0.0001    0.3141
                46        46        45       45        46        46

MTOTEXP    0.27620   0.17598   0.16836 -0.25004   0.51161  -0.02580
            0.0632    0.2420    0.2689   0.0976    0.0003    0.8649
                46        46        45       45        46        46
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                    S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                    CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              SCOUNT   STUTEAR   PRSCHEX  PRADMPER  LDEDEGRE  SCHPREST

MAGE         0.14955   0.10525   0.22377  -0.21760   0.34990  -0.01005
              0.3212    0.4863    0.1395    0.1510    0.0171    0.9471
                  46        46        45        45        46        46

MSCHEXP      0.11912   0.09671   0.24822  -0.25090   0.33598   0.16868
              0.4304    0.5226    0.1002    0.0964    0.0224    0.2624
                  46        46        45        45        46        46

MOMED        0.39358   0.42512  -0.11835  -0.03427   0.25259  -0.23052
              0.0068    0.0032    0.4388    0.8232    0.0903    0.1232
                  46        46        45        45        46        46

POPED        0.44547   0.50540  -0.06788   0.04095   0.20043  -0.28626
              0.0019    0.0003    0.6577    0.7894    0.1817    0.0538
                  46        46        45        45        46        46

SIBS        -0.23744  -0.30871  -0.00699  -0.09344  -0.25277   0.23651
              0.1121    0.0368    0.9637    0.5415    0.0901    0.1135
                  46        46        45        45        46        46

PCTMPRO      0.20143   0.23967  -0.14070   0.12466   0.37548  -0.39679
              0.1795    0.1087    0.3566    0.4146    0.0101    0.0063
                  46        46        45        45        46        46

PCTMNPRO    -0.15422  -0.33661   0.24371  -0.27852  -0.10922   0.44805
              0.3062    0.0222    0.1067    0.0639    0.4700    0.0018
                  46        46        45        45        46        46

PCTFPRO      0.24112   0.33889   0.02927   0.06654   0.31983  -0.44899
              0.1065    0.0212    0.8486    0.6641    0.0303    0.0018
                  46        46        45        45        46        46

PCTFNPRO    -0.12216  -0.16543   0.16123  -0.02730  -0.11503   0.26404
              0.4187    0.2719    0.2900    0.8587    0.4465    0.0762
                  46        46        45        45        46        46

SCHSEX       0.08180  -0.15399  -0.27015   0.04265  -0.12114  -0.00494
              0.5889    0.3069    0.0727    0.7809    0.4226    0.9740
                  46        46        45        45        46        46

SCHRACE     -0.28952  -0.39404   0.02407  -0.17090  -0.18049   0.47336
              0.0510    0.0067    0.8753    0.2617    0.2300    0.0009
                  46        46        45        45        46        46

SCHSPEED    -0.07362   0.45347   0.28900   0.04782   0.05940  -0.17584
              0.6268    0.0016    0.0542    0.7551    0.6950    0.2424
                  46        46        45        45        46        46

SCHDROP      0.07168   0.14177   0.14096  -0.04431   0.05101  -0.25217
              0.6359    0.3473    0.3557    0.7726    0.7364    0.0909
                  46        46        45        45        46        46
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

                  CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              SCOUNT  STUTEAR  PRSCHEX PRADMPER LDEDEGRE SCHPREST

SCHDYSUS -0.04515 -0.02291 -0.04165  0.04581 -0.13762 -0.10633
           0.7657   0.8799   0.7859   0.7651   0.3617   0.4818
               46       46       45       45       46       46

TCOUNT    0.95177 -0.02271  0.08626 -0.19142  0.07688 -0.03706
           0.0001   0.8809   0.5732   0.2078   0.6116   0.8068
               46       46       45       45       46       46

SCOUNT    1.00000  0.26144  0.12649 -0.18333  0.09146 -0.06128
           0.0000   0.0793   0.4077   0.2280   0.5455   0.6858
               46       46       45       45       46       46

STUTEAR   0.26144  1.00000  0.16903  0.02822  0.08972 -0.01998
           0.0793   0.0000   0.2670   0.8540   0.5532   0.8951
               46       46       45       45       46       46

PRSCHEX   0.12649  0.16903  1.00000 -0.39281  0.26367  0.10966
           0.4077   0.2670   0.0000   0.0076   0.0801   0.4733
               45       45       45       45       45       45

PRADMPER -0.18333  0.02822 -0.39281  1.00000 -0.19169 -0.18005
           0.2280   0.8540   0.0076   0.0000   0.2071   0.2366
               45       45       45       45       45       45

LDEDEGRE  0.09146  0.08972  0.26367 -0.19169  1.00000  0.01601
           0.5455   0.5532   0.0801   0.2071   0.0000   0.9159
               46       46       45       45       46       46

SCHPREST -0.06128 -0.01998  0.10966 -0.18005  0.01601  1.00000
           0.6858   0.8951   0.4733   0.2366   0.9159   0.0000
               46       46       45       45       46       46
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Appendix Three

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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:22 FRIDAY, JUNE 11, 1982
VARIABLE      N             MEAN             STD DEV                 SUM             MINIMUM             MAXIMUM


APCMATH      46      81.62694845          6.63036652       3754.83962891         67.94642857         96.21093750
APCREAD      46      83.72502323          6.97125933       3851.35106858         68.47098214         98.53515625
APCWRIT      46      82.76896311          5.93392915       3807.37230320         68.77976190         96.77734375
MSEX         46       0.07241257          0.04473107          3.33097817                   0          0.20000000
MRACE        46       0.48933456          0.13142921         22.50938957          0.21052632          0.81818182
MCADDEXP     46       8.77799135          2.00187599        403.78760221          4.50000000         15.06896552
MNTECMSC     46     544.99258314         24.14570112      25069.65882428        498.90909091        617.73333333
MNTEARSC     46     590.74463886         25.00009594      27174.25338737        537.65384615        666.20000000
MADPERAT     46       1.09041045          0.09060613         50.15888087          1.00000000          1.40000000
MHIDEGRE     46       2.32494352          0.24425043        106.94740212          1.57575758          2.77142857
MABSEXP      46       7.78584121          1.49525622        358.14869574          4.88571429         10.71428571
MABSUNEX     46       0.04951876          0.09893550          2.27786311                   0          0.56521739
MSALAMT      46   17137.71713899        451.25938472     788334.98839354      16121.17647059      18260.18518519
MTOTEXP      46      10.18069349          2.00747385        468.31190060          5.95454545         16.48275862
MAGE         46      38.26973537          2.36797540       1760.40782717         31.38095238         44.34482759
MSCHEXP      46       5.23414369          1.19152367        240.77060981          3.45454545          9.10344828
MOMED        46       3.86366284          0.32785801        177.72849047          3.10526316          4.50943396
POPED        46       3.88156419          0.36019050        178.55195283          3.18181818          4.64150943
SIBS         46       3.09042873          0.45932252        142.15972159          2.32941176          4.09859155
PCTMPRO      46       0.25769975          0.13824676         11.85418851          0.03571429          0.67924528
PCTMNPRO     46       0.33336313          0.12974670         15.33470379          0.07547170          0.61971831
PCTFPRO      46       0.19085376          0.16549578          8.77927309                   0          0.67924528
PCTFNPRO     46       0.60058132          0.12465747         27.62674095          0.26415094          0.85000000
SCHSEX       46       0.48862231          0.03292748         22.47662624          0.37022901          0.55277281
SCHRACE      46       0.55854620          0.37823058         25.69312522          0.01342282          1.00000000
SCHSPEED     46       0.05315082          0.07223925          2.44493782                   0          0.37022901
SCHDROP      46       0.00028949          0.00081281          0.01331639                   0          0.00381679
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M      15:22 FRIDAY, JUNE 11, 1982
VARIABLE     N           MEAN           STD DEV                SUM            MINIMUM           MAXIMUM
SCHDYSUS    46     0.07988684        0.10029819         3.67479442                  0        0.43525180
TCOUNT      46    19.95652174        7.77733608       918.00000000         7.00000000       40.00000000
SCOUNT      46   485.17391304      205.66794212     22318.00000000       187.00000000     1050.00000000
STUTEAR     46    24.34461321        3.81568797      1119.85220745        17.71428571       33.14285714
PRSCHEX     45     6.24444444        5.56023036       281.00000000         1.00000000       23.00000000
PRADMPER    45     3.44444444        3.07892806       155.00000000                  0        9.00000000
LDEDEGRE    46     2.64538606        0.15170117       121.68775097         2.31250000        2.97297297
SCHPREST    46     2.10193769        0.17344574        96.68913357         1.77272727        2.41176471

            CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

                               APCMATH  APCREAD  APCWRIT

                   MSEX      -0.28837 -0.18215 -0.18961
                               0.0520   0.2257   0.2069
                                   46       46       46

                   MRACE     -0.44104 -0.55784 -0.59014
                               0.0022   0.0001   0.0001
                                   46       46       46

                   MCADDEXP   0.16382  0.23809  0.23266
                               0.2767   0.1111   0.1197
                                   46       46       46

                   MNTECHSC   0.37144  0.35583  0.41008
                               0.0110   0.0152   0.0046
                                   46       46       46

                   MNTEARSC   0.29439  0.29236  0.28048
                               0.0470   0.0486   0.0590
                                   46       46       46

                   MADPERAT  -0.02260 -0.14002 -0.07845
                               0.8815   0.3533   0.6043
                                   46       46       46

                   MHIDEGRE   0.47886  0.55468  0.55236
                               0.0008   0.0001   0.0001
                                   46       46       46

                   MABSEXP   -0.30869 -0.30585 -0.32344
                               0.0369   0.0387   0.0283
                                   46       46       46
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                 S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:22 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                                   APCMATH  APCREAD  APCWRIT

                         MABSUMEX  0.11904 -0.00339 -0.02951
                                    0.4307   0.9822   0.8456
                                        46       46       46

                         MSALAMT   0.09340  0.11611  0.11736
                                    0.5370   0.4423   0.4373
                                        46       46       46

                         MTOTEXP   0.19249  0.27737  0.26827
                                    0.2000   0.0620   0.0715
                                        46       46       46

                         MAGE      0.07459  0.15349  0.21132
                                    0.6223   0.3085   0.1586
                                        46       46       46

                         MSCHEXP   0.05676  0.15901  0.16558
                                    0.7079   0.2912   0.2715
                                        46       46       46

                         MOMED     0.40892  0.55431  0.44678
                                    0.0048   0.0001   0.0019
                                        46       46       46

                         POPED     0.52959  0.62391  0.52945
                                    0.0002   0.0001   0.0002
                                        46       46       46

                         SIBS     -0.53873 -0.67612 -0.62535
                                    0.0001   0.0001   0.0001
                                        46       46       46

                         PCTMPRO   0.58283  0.63206  0.61626
                                    0.0001   0.0001   0.0001
                                        46       46       46

                         PCTMNPRO -0.61396 -0.73681 -0.66968
                                    0.0001   0.0001   0.0001
                                        46       46       46

                         PCTFPRO   0.58371  0.68110  0.66138
                                    0.0001   0.0001   0.0001
                                        46       46       46

                         PCTFNPRO -0.40653 -0.39954 -0.42963
                                    0.0051   0.0059   0.0029
                                        46       46       46

                         SCHSEX    0.17513  0.15675  0.10006
                                    0.2444   0.2982   0.5082
                                        46       46       46
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          S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:22 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

                            APCMATH  APCREAD  APCWRIT

                 SCHRACE   -0.60260 -0.74400 -0.70198
                             0.0001   0.0001   0.0001
                                 46       46       46

                 SCHSPEED   0.13832  0.12478  0.21967
                             0.3593   0.4087   0.1424
                                 46       46       46

                 SCHDROP   -0.04629 -0.04764  0.06978
                             0.7600   0.7532   0.6449
                                 46       46       46

                 SCHDYSUS  -0.13069 -0.15870 -0.07808
                             0.3867   0.2922   0.6060
                                 46       46       46

                 TCOUNT    -0.15067  0.00179 -0.09623
                             0.3175   0.9906   0.5246
                                 46       46       46

                 SCOUNT    -0.05031  0.09310 -0.01548
                             0.7398   0.5383   0.9186
                                 46       46       46

                 STUTEAR    0.33891  0.30661  0.25102
                             0.0212   0.0382   0.0924
                                 46       46       46

                 PRSCHEX   -0.08567 -0.00847 -0.02960
                             0.5758   0.9560   0.8469
                                 45       45       45

                 PRADMPER   0.23348  0.22093  0.16451
                             0.1227   0.1447   0.2802
                                 45       45       45

                 LDEDEGRE   0.19663  0.25681  0.25292
                             0.1903   0.0849   0.0899
                                 46       46       46

                 SCHPREST  -0.35426 -0.35205 -0.39980
                             0.0157   0.0164   0.0059
                                 46       46       46
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Appendix Four

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                                  S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

VARIABLE      N             MEAN          STD DEV               SUM            MINIMUM            MAXIMUM


MSEX         68       0.15896133       0.13930289        10.8093704                  0         0.48076923
MRACE        68       0.49515098       0.12842469        33.6702667         0.21052632         0.81818182
MCADDEXP     68       9.17533080       1.07292587       623.9224944         4.50000000        15.06896552
MNTECHSC     68     545.94841113      25.21680250     37124.4919567       495.66666667       617.73333333
MNTEARSC     68     583.54756070      25.98193758     39681.2341279       533.97435897       666.20000000
MADPERAT     68       1.09123722       0.08339461        74.2041312         1.00000000         1.40000000
MHIDEGRE     68       2.43480742       0.27198706       165.5669048         1.57575758         3.04347826
MABSEXP      68       7.51482827       1.56664432       511.0083226         3.14705882        10.75000000
MABSUNEX     68       0.04428660       0.08505428         3.0114890                  0         0.56521739
MBALAMT      68   17351.62108602     533.95097938   1179910.2338495     16121.17647059     18260.18518519
MTOTEXP      68      10.71179941       1.96771923       728.4023597         5.95454545        16.48275862
MAGE         68      38.70586250       2.15931916      2631.9986499        31.38095238        44.34482759
MSCHEXP      68       5.73141891       1.35684506       389.7364857         3.45454545         9.10344828
MOMED        68       3.88564218       0.30160689       264.2236679         3.14893617         4.50943396
POPED        68       3.88324540       0.36579099       264.0606874         2.92857143         4.64150943
SIBS         68       3.34785626       0.56806330       227.6542259         2.32941176         4.80733945
PCTMPRO      68       0.27418479       0.12772813        18.6445655         0.03571429         0.67924528
PCTMNPRO     68       0.33034410       0.12267037        22.4633987         0.07547170         0.61971831
PCTFPRO      68       0.21393226       0.16490207        14.5473939                  0         0.67924528
PCTFNPRO     68       0.58214507       0.12259674        39.5858645         0.26415094         0.81707317
SCHSEX       68       0.49089436       0.03005556        33.3808162         0.37022901         0.55277281
SCHRACE      68       0.56950295       0.35495134        38.7262003         0.01342282         1.00000000
SCHSPEED     68       0.05990446       0.06533015         4.0735034                  0         0.37022901
SCHDROP      68       0.01373418       0.03315858         0.9339244                  0         0.14156466
SCHDYSUS     68       0.32847934       0.40990776        22.3365954                  0         1.58637084
TCOUNT       68      24.41176471      13.15945298      1660.0000000         7.00000000        77.00000000
SCOUNT       68     710.33823529     545.72691794     48303.0000000       187.00000000      2885.00000000
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                                   S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

VARIABLE      N              MEAN          STD DEV              SUM          MINIMUM          MAXIMUM
STUTEAR      68       27.30106917       6.37059396     1856.4727035      17.00000000      42.93333333
PRSCHEX      67        5.76119403       5.09036390      386.0000000       1.00000000      23.00000000
PRADNPER     67        3.44776119       3.06635497      231.0000000                0       9.00000000
LDEGEORE     68        2.72071880       0.18551905      185.0088782       2.31250000       3.13793103
SCHPREST     68        2.08718637       0.16898870      141.9286735       1.64705882       2.41176471

                   CORRELATION COEFFICIENTS / PROB ¶ IRI UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              MSEX    MRACE MCADDEXP MNTECHSC MNTEARSC MADPERAT MHIDEGRE  MABSEXP MABSUNEX  MSALAMT  MTOTEXP     MAGE MSCHEXP

MSEX       1.00000  0.05285  0.28308  0.00421 -0.38081  0.02273  0.52259 -0.26583 -0.19026  0.49745  0.36780  0.27064  0.54225
            0.0000   0.6686   0.0193   0.9728   0.0014   0.8540   0.0001   0.0284   0.1202   0.0001   0.0020   0.0256   0.0001
                68       68       68       68       68       68       68       68       68       68       68       68       68

MRACE      0.05285  1.00000  0.09498 -0.58958 -0.53959  0.01270 -0.35668  0.40269 -0.10077  0.19964  0.02102 -0.06895  0.01679
            0.6686   0.0000   0.4410   0.0001   0.0001   0.9181   0.0028   0.0007   0.4135   0.1026   0.8649   0.5764   0.8919
                68       68       68       68       68       68       68       68       68       68       68       68       68

MCADDEXP   0.28308  0.09498  1.00000  0.03341 -0.21498 -0.21668  0.55998 -0.31492 -0.19301  0.78829  0.95806  0.81722  0.79526
            0.0193   0.4410   0.0000   0.7868   0.0783   0.0759   0.0001   0.0089   0.1148   0.0001   0.0001   0.0001   0.0001
                68       68       68       68       68       68       68       68       68       68       68       68       68

MNTECHSC   0.00421 -0.58958  0.03341  1.00000  0.74879 -0.12299  0.24883 -0.20940  0.23641  0.02779  0.09299  0.28312  0.06486
            0.9728   0.0001   0.7868   0.0000   0.0001   0.3177   0.0407   0.0866   0.0523   0.8220   0.4507   0.0193   0.5992
                68       68       68       68       68       68       68       68       68       68       68       68       68

MNTEARSC  -0.38081 -0.53959 -0.21498  0.74879  1.00000  0.00595 -0.11604  0.05078  0.27239 -0.32840 -0.19557  0.00496 -0.28201
            0.0014   0.0001   0.0783   0.0001   0.0000   0.9616   0.3460   0.6809   0.0246   0.0063   0.1100   0.9680   0.0198
                68       68       68       68       68       68       68       68       68       68       68       68       68

MADPERAT   0.02273  0.01270 -0.21668 -0.12299  0.00595  1.00000 -0.01008 -0.05315 -0.05258 -0.21688 -0.21291 -0.30857 -0.19518
            0.8540   0.9181   0.0759   0.3177   0.9616   0.0000   0.9350   0.6669   0.6702   0.0757   0.0813   0.0105   0.1107
                68       68       68       68       68       68       68       68       68       68       68       68       68

MHIDEGRE   0.52259 -0.35668  0.55998  0.24883 -0.11604 -0.01008  1.00000 -0.57762 -0.10825  0.55080  0.64819  0.42777  0.58520
            0.0001   0.0028   0.0001   0.0407   0.3460   0.9350   0.0000   0.0001   0.3796   0.0001   0.0001   0.0003   0.0001
                68       68       68       68       68       68       68       68       68       68       68       68       68

MABSEXP   -0.26583  0.40269 -0.31492 -0.20940  0.05078 -0.05315 -0.57762  1.00000  0.23675 -0.14541 -0.33106 -0.17567 -0.34325
            0.0284   0.0007   0.0089   0.0866   0.6809   0.6669   0.0001   0.0000   0.0519   0.2368   0.0058   0.1519   0.0042
                68       68       68       68       68       68       68       68       68       68       68       68       68

MABSUNEX  -0.19026 -0.10077 -0.19301  0.23641  0.27239 -0.05258 -0.10825  0.23675  1.00000  0.01478 -0.12004 -0.02527 -0.19022
            0.1202   0.4135   0.1148   0.0523   0.0246   0.6702   0.3796   0.0519   0.0000   0.9048   0.3295   0.8379   0.1202
                68       68       68       68       68       68       68       68       68       68       68       68       68

MSALAMT    0.49745  0.19964  0.78829  0.02779 -0.32840 -0.21688  0.55080 -0.14541  0.01478  1.00000  0.80653  0.70698  0.73573
            0.0001   0.1026   0.0001   0.8220   0.0063   0.0757   0.0001   0.2368   0.9048   0.0000   0.0001   0.0001   0.0001
                68       68       68       68       68       68       68       68       68       68       68       68       68
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                      CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              MSEX     MRACE MCADDEXP MNTECHSC MNTEARSC MADPERAT MHIDEGRE  MABSEXP MABSUNEX  MSALANT  MTOTEXP      MAGE  MSCHEXP

MTOTEXP    0.36780   0.02102  0.95806  0.09299 -0.19557 -0.21291  0.64819 -0.33106 -0.12004  0.80653  1.00000   0.84889  0.80708
            0.0020    0.8649   0.0001   0.4507   0.1100   0.0813   0.0001   0.0058   0.3295   0.0001   0.0000    0.0001   0.0001
                68        68       68       68       68       68       68       68       68       68       68        68       68

MAGE       0.27064  -0.06895  0.81722  0.28312  0.00496 -0.30857  0.42777 -0.17567 -0.02527  0.70698  0.84889   1.00000  0.70807
            0.0256    0.5764   0.0001   0.0193   0.9680   0.0105   0.0003   0.1519   0.8379   0.0001   0.0001    0.0000   0.0001
                68        68       68       68       68       68       68       68       68       68       68        68       68

MSCHEXP    0.54225   0.01679  0.79526  0.06406 -0.28201 -0.19518  0.58520 -0.34325 -0.19022  0.73573  0.80708   0.70807  1.00000
            0.0001    0.8919   0.0001   0.5992   0.0198   0.1107   0.0001   0.0042   0.1202   0.0001   0.0001    0.0001   0.0000
                68        68       68       68       68       68       68       68       68       68       68        68       68

MOMED     -0.00812  -0.42642  0.19207  0.33381  0.24029 -0.11796  0.49367 -0.24571  0.11909  0.09197  0.27650   0.18589  0.10922
            0.9476    0.0003   0.1166   0.0054   0.0484   0.3380   0.0001   0.0434   0.3334   0.4557   0.0225    0.1291   0.3753
                68        68       68       68       68       68       68       68       68       68       68        68       68

POPED     -0.07160  -0.48212  0.19966  0.36203  0.25279 -0.15627  0.47364 -0.32523  0.13431  0.07904  0.26794   0.16302  0.13173
            0.5618    0.0001   0.1026   0.0024   0.0375   0.2032   0.0001   0.0068   0.2749   0.5217   0.0272    0.1841   0.2842
                68        68       68       68       68       68       68       68       68       68       68        68       68

SIBS       0.61225   0.48999  0.00151 -0.21189 -0.38121  0.08053 -0.05920  0.20738 -0.08459  0.26827  0.02170   0.06377  0.17390
            0.0001    0.0001   0.9902   0.0828   0.0013   0.5139   0.6315   0.0897   0.4928   0.0270   0.8606    0.6054   0.1561
                68        68       68       68       68       68       68       68       68       68       68        68       68

PCTMPRO    0.09037  -0.49213  0.22665  0.38933  0.21741 -0.00891  0.58747 -0.49882  0.00270  0.09099  0.28752   0.19891  0.17014
            0.4636    0.0001   0.0631   0.0010   0.0749   0.9425   0.0001   0.0001   0.9826   0.4606   0.0174    0.1039   0.1654
                68        68       68       68       68       68       68       68       68       68       68        68       68

PCTMNPRO  -0.05489   0.61955 -0.09133 -0.37363 -0.27062  0.13279 -0.40692  0.50658  0.09584  0.01878 -0.13103  -0.04683 -0.06550
            0.6566    0.0001   0.4589   0.0017   0.0256   0.2804   0.0006   0.0001   0.4369   0.8792   0.2869    0.7045   0.5956
                68        68       68       68       68       68       68       68       68       68       68        68       68

PCTFPRO    0.10048  -0.62666  0.18338  0.49073  0.29148 -0.04152  0.55570 -0.45066  0.03580  0.09753  0.24451   0.21333  0.10041
            0.4149    0.0001   0.1344   0.0001   0.0159   0.7367   0.0001   0.0001   0.7719   0.4288   0.0445    0.0807   0.4153
                68        68       68       68       68       68       68       68       68       68       68        68       68

PCTFNPRO  -0.13568   0.26060 -0.23824 -0.42708 -0.21382 -0.00379 -0.34874  0.24547 -0.05849 -0.17925 -0.28037  -0.28300 -0.13019
            0.2699    0.0318   0.0504   0.0003   0.0800   0.9756   0.0036   0.0436   0.6356   0.1436   0.0206    0.0194   0.2900
                68        68       68       68       68       68       68       68       68       68       68        68       68

SCHSEX     0.06284   0.05849  0.22731  0.07792 -0.08244 -0.05916  0.28417 -0.29625 -0.06601  0.00779  0.21344   0.05992  0.23557
            0.6107    0.6356   0.0623   0.5276   0.5039   0.6318   0.0189   0.0142   0.5928   0.9497   0.0805    0.6274   0.0531
                68        68       68       68       68       68       68       68       68       68       68        68       68

SCHRACE    0.05210   0.79634 -0.11807 -0.43072 -0.32377  0.12953 -0.49128  0.48664 -0.00891  0.01697 -0.17318  -0.12044 -0.08929
            0.6730    0.0001   0.3376   0.0002   0.0071   0.2924   0.0001   0.0001   0.9425   0.8908   0.1579    0.3279   0.4690
                68        68       68       68       68       68       68       68       68       68       68        68       68

SCHSPEED   0.00305  -0.34629 -0.00572  0.31357  0.21286 -0.10365  0.10354  0.12166  0.22921  0.15711 -0.00447   0.19585  0.01327
            0.9803    0.0038   0.9631   0.0092   0.0814   0.4003   0.4008   0.3230   0.0601   0.2007   0.9711    0.1095   0.9145
                68        68       68       68       68       68       68       68       68       68       68        68       68
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                                   S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                          CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                MSEX     MRACE MCADDEXP MNITECMSC MNITEARSC MADPERAT MHIDEGRE  MABSEXP MABSUMEX   MSALAMT   MTOTEXP      MAGE  MSCHEXP

SCHDROP      0.69627   0.00314  0.29012   0.07707  -0.19346 -0.05622  0.36684 -0.16702 -0.08450   0.46984   0.35832   0.29864  0.45471
              0.0001    0.9797   0.0164    0.5322    0.1139   0.6489   0.0021   0.1734   0.4932    0.0001    0.0027    0.0134   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

SCHDYSUS     0.75892   0.15845  0.28626  -0.02762  -0.41028  0.02026  0.47593 -0.09063 -0.09400   0.54590   0.32992   0.24857  0.44725
              0.0001    0.1968   0.0180    0.8231    0.0005   0.8697   0.0001   0.4623   0.4458    0.0001    0.0060    0.0410   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

TCOUNT       0.57059  -0.05449  0.27990   0.10168  -0.19821 -0.10794  0.46312 -0.25860 -0.13036   0.35774   0.38372   0.31139  0.42955
              0.0001    0.6589   0.0208    0.4093    0.1052   0.3809   0.0001   0.0332   0.2893    0.0027    0.0012    0.0097   0.0003
                  68        68       68        68        68       68       68       68       68        68        68        68       68

SCOUNT       0.65855  -0.05084  0.31819   0.10227  -0.22997 -0.10767  0.50128 -0.25520 -0.09946   0.47225   0.41794   0.33887  0.49476
              0.0001    0.6805   0.0082    0.4066    0.0592   0.3821   0.0001   0.0357   0.4197    0.0001    0.0004    0.0047   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

STUTEAR      0.60958  -0.04853  0.35154   0.07971  -0.23043 -0.10910  0.47617 -0.16437  0.05316   0.60031   0.42478   0.31944  0.50080
              0.0001    0.6943   0.0033    0.5182    0.0587   0.3758   0.0001   0.1804   0.6668    0.0001    0.0003    0.0079   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

PRSCHEX     -0.14406  -0.02374  0.15839  -0.04159   0.02417  0.04942 -0.07647  0.00876 -0.12254   0.05732   0.11079   0.16930  0.16497
              0.2448    0.8488   0.2005    0.7383    0.8461   0.6912   0.5385   0.9439   0.3232    0.6450    0.3721    0.1708   0.1822
                  67        67       67        67        67       67       67       67       67        67        67        67       67

PRADMPER    -0.02249  -0.23313 -0.20537   0.24732   0.25704 -0.21645  0.00400 -0.23649  0.10231  -0.13473  -0.19758  -0.15100 -0.18332
              0.8566    0.0576   0.0955    0.0436    0.0357   0.0785   0.9744   0.0540   0.4100    0.2770    0.1090    0.2226   0.1376
                  67        67       67        67        67       67       67       67       67        67        67        67       67

LDEDEGRE     0.48700  -0.08602  0.50224   0.15940  -0.17054 -0.05824  0.74642 -0.37235 -0.12178   0.61286   0.52187   0.40433  0.50911
              0.0001    0.4855   0.0001    0.1941    0.1644   0.6371   0.0001   0.0018   0.3225    0.0001    0.0001    0.0006   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

SCHPREST    -0.07296   0.61928  0.02021  -0.67436  -0.46982 -0.04438 -0.36444  0.34309 -0.01684   0.08214  -0.04940  -0.07032  0.01712
              0.5543    0.0001   0.8701    0.0001    0.0001   0.7193   0.0022   0.0042   0.8916    0.5055    0.6891    0.5688   0.8898
                  68        68       68        68        68       68       68       68       68        68        68        68       68

               MOMED     POPED     SIBS   PCTMPRO  PCTMNPRO  PCTFPRO PCTFNPRO   SCHSEX  SCHRACE  SCHSPEED   SCHDROP  SCHDYSUS   TCOUNT

MSEX        -0.00812  -0.07160  0.61225   0.09037  -0.05489  0.10048 -0.13568  0.06284  0.05210   0.00305   0.69627   0.75892  0.57059
              0.9476    0.5618   0.0001    0.4636    0.6566   0.4149   0.2699   0.6107   0.6730    0.9803    0.0001    0.0001   0.0001
                  68        68       68        68        68       68       68       68       68        68        68        68       68

MRACE       -0.42642  -0.48212  0.48999  -0.49213   0.61955 -0.62666  0.26060  0.05849  0.79634  -0.34629   0.00314   0.15845 -0.05449
              0.0003    0.0001   0.0001    0.0001    0.0001   0.0001   0.0318   0.6356   0.0001    0.0038    0.9797    0.1968   0.6589
                  68        68       68        68        68       68       68       68       68        68        68        68       68

MCADDEXP     0.19207   0.19966  0.00151   0.22665  -0.09133  0.18338 -0.23824  0.22731 -0.11807  -0.00572   0.29012   0.28626  0.27990
              0.1166    0.1026   0.9902    0.0631    0.4589   0.1344   0.0504   0.0623   0.3376    0.9631    0.0164    0.0180   0.0208
                  68        68       68        68        68       68       68       68       68        68        68        68       68

MNITCMSC     0.33381   0.36703 -0.21189   0.38933  -0.37363  0.49073 -0.42708  0.07792 -0.43072   0.31357   0.07707  -0.02762  0.10168
              0.0054    0.0024   0.0828    0.0010    0.0017   0.0001   0.0003   0.5276   0.0002    0.0092    0.5322    0.8231   0.4093
                  68        68       68        68        68       68       68       68       68        68        68        68       68
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982

                  CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              MOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHBYBUS    TCOUNT

MWTEARSC    0.24029   0.25279  -0.38121   0.21741  -0.27062   0.29148  -0.21382  -0.08244  -0.32377   0.21286  -0.19346  -0.41028  -0.19821
             0.0484    0.0375    0.0013    0.0749    0.0256    0.0159    0.0800    0.5039    0.0071    0.0814    0.1139    0.0005    0.1052
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MADPERAT   -0.11796  -0.15627   0.08053  -0.00891   0.13279  -0.04152  -0.00379  -0.05916   0.12953  -0.10365  -0.05622   0.02026  -0.10799
             0.3380    0.2032    0.5139    0.9425    0.2804    0.7367    0.9756    0.6318    0.2924    0.4003    0.6489    0.8697    0.3809
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MHIDEGRE    0.49367   0.47364  -0.05920   0.58747  -0.40692   0.55570  -0.34874   0.28417  -0.49128   0.10354   0.36684   0.47593   0.46312
             0.0001    0.0001    0.6315    0.0001    0.0006    0.0001    0.0036    0.0189    0.0001    0.4008    0.0021    0.0001    0.0001
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MABSEXP    -0.24571  -0.32523   0.20730  -0.49882   0.50658  -0.45066   0.24547  -0.29625   0.48664   0.12166  -0.16702  -0.09063  -0.25860
             0.0434    0.0068    0.0897    0.0001    0.0001    0.0001    0.0436    0.0142    0.0001    0.3230    0.1734    0.4623    0.0332
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MABSUNEX    0.11909   0.13431  -0.08459   0.00270   0.09584   0.03580  -0.05849  -0.06601  -0.00891   0.22921  -0.08450  -0.09400  -0.13036
             0.3334    0.2749    0.4928    0.9826    0.4369    0.7719    0.6356    0.5928    0.9425    0.0601    0.4932    0.4458    0.2893
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MSALAMT     0.09197   0.07584   0.26827   0.09099   0.01878   0.09753  -0.17925   0.00779   0.01697   0.15711   0.46984   0.54590   0.35774
             0.4557    0.5217    0.0270    0.4606    0.8792    0.4288    0.1436    0.9497    0.8906    0.2007    0.0001    0.0001    0.0027
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MTOTEXP     0.27650   0.26794   0.02170   0.28752  -0.13103   0.24451  -0.28037   0.21344  -0.17318  -0.00447   0.35832   0.38992   0.38378
             0.0225    0.0272    0.8606    0.0174    0.2869    0.0445    0.0206    0.0805    0.1579    0.9711    0.0027    0.0010    0.0012
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MAGE        0.18509   0.16302   0.06377   0.19891  -0.04683   0.21333  -0.28300   0.05992  -0.12044   0.19585   0.29864   0.24857   0.31139
             0.1291    0.1841    0.6054    0.1039    0.7045    0.0807    0.0194    0.6274    0.3279    0.1095    0.0134    0.0410    0.0097
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MSCHEXP     0.10922   0.13173   0.17390   0.17014  -0.06550   0.10041  -0.13019   0.23557  -0.08929   0.01327   0.45471   0.44725   0.42955
             0.3753    0.2842    0.1561    0.1654    0.5956    0.4153    0.2900    0.0531    0.4690    0.9145    0.0001    0.0001    0.0003
                 68        68        68        68        68        68        68        68        68        68        68        68        68

MOMED       1.00000   0.94227  -0.46352   0.79982  -0.48437   0.78573  -0.60312   0.26490  -0.53398   0.12570  -0.02930  -0.07295   0.17806
             0.0000    0.0001    0.0001    0.0001    0.0001    0.0001    0.0001    0.0290    0.0001    0.3071    0.8125    0.5544    0.1463
                 68        68        68        68        68        68        68        68        68        68        68        68        68

POPED       0.94227   1.00000  -0.55495   0.76031  -0.55199   0.79894  -0.60989   0.29306  -0.63206   0.19249  -0.06485  -0.10476   0.15679
             0.0001    0.0000    0.0001    0.0001    0.0001    0.0001    0.0001    0.0153    0.0001    0.1158    0.5993    0.3952    0.2017
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SIBS       -0.46352  -0.55495   1.00000  -0.39963   0.43850  -0.40316   0.08427  -0.08247   0.58578  -0.08587   0.46535   0.58537   0.25290
             0.0001    0.0001    0.0000    0.0007    0.0002    0.0007    0.4945    0.5037    0.0001    0.4863    0.0001    0.0001    0.0375
                 68        68        68        68        68        68        68        68        68        68        68        68        68

PCTMPRO     0.79982   0.76031  -0.39963   1.00000  -0.65331   0.85286  -0.60748   0.33794  -0.60405   0.08016   0.08706   0.03072   0.20696
             0.0001    0.0001    0.0007    0.0000    0.0001    0.0001    0.0001    0.0048    0.0001    0.5158    0.4802    0.8036    0.0904
                 68        68        68        68        68        68        68        68        68        68        68        68        68
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                         CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

              MOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYSUS    TCOUNT

PCTMNPRO   -0.40437  -0.55199   0.43850  -0.65331   1.00000  -0.74588   0.46476  -0.15536   0.82089  -0.10270  -0.07356   0.05155  -0.08849
             0.0001    0.0001    0.0002    0.0001    0.0000    0.0001    0.0001    0.2059    0.0001    0.4046    0.5511    0.6763    0.4730
                 68        68        68        68        68        68        68        68        68        68        68        68        68

PCTFPRO     0.78573   0.79894  -0.40316   0.85286  -0.74588   1.00000  -0.74304   0.15403  -0.72987   0.28808   0.08286   0.02761   0.19448
             0.0001    0.0001    0.0007    0.0001    0.0001    0.0000    0.0001    0.2098    0.0001    0.0172    0.5017    0.8232    0.1120
                 68        68        68        68        68        68        68        68        68        68        68        68        68

PCTFNPRO   -0.60312  -0.60989   0.08427  -0.60748   0.46476  -0.74304   1.00000  -0.13805   0.31884  -0.19647  -0.16637  -0.08514  -0.22761
             0.0001    0.0001    0.4945    0.0001    0.0001    0.0001    0.0000    0.2588    0.0080    0.1083    0.1751    0.4900    0.0619
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCHSEX      0.26490   0.29308  -0.08247   0.33794  -0.15536   0.15403  -0.13805   1.00000  -0.10584  -0.49032  -0.04699   0.06339   0.05436
             0.0290    0.0153    0.5037    0.0048    0.2059    0.2098    0.2588    0.0000    0.3903    0.0001    0.7036    0.6076    0.6598
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCHRACE    -0.53398  -0.63206   0.58578  -0.60405   0.82089  -0.72987   0.31884  -0.10584   1.00000  -0.26240  -0.00506   0.09470  -0.11497
             0.0001    0.0001    0.0001    0.0001    0.0001    0.0001    0.0080    0.3903    0.0000    0.0306    0.9673    0.4424    0.3505
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCHSPEED    0.12570   0.19249  -0.08587   0.08016  -0.10270   0.28808  -0.19647  -0.49032  -0.26240   1.00000   0.00077   0.18687  -0.11692
             0.3071    0.1158    0.4863    0.5158    0.4046    0.0172    0.1083    0.0001    0.0306    0.0000    0.9950    0.1270    0.3424
                 68        68        68        68        68        68        68        68        68        68        68        68        66

SCHDROP    -0.02930  -0.06485   0.46535   0.08706  -0.07356   0.08286  -0.16637  -0.04699  -0.00506   0.00077   1.00000   0.51723   0.72901
             0.8125    0.5993    0.0001    0.4802    0.5511    0.5017    0.1751    0.7036    0.9673    0.9950    0.0000    0.0001    0.0001
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCHDYSUS   -0.07295  -0.10476   0.58537   0.03072   0.05155   0.02761  -0.08514   0.06339   0.09470   0.18687   0.51723   1.00000   0.42085
             0.5544    0.3952    0.0001    0.8036    0.6763    0.8232    0.4900    0.6076    0.4424    0.1270    0.0001    0.0000    0.0004
                 68        68        68        68        68        68        68        68        68        68        68        68        68

TCOUNT      0.17806   0.15679   0.25290   0.20696  -0.08849   0.19448  -0.22761   0.05436  -0.11497  -0.11692   0.72901   0.42085   1.00000
             0.1463    0.2017    0.0375    0.0904    0.4730    0.1120    0.0619    0.6598    0.3505    0.3424    0.0001    0.0004    0.0000
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCOUNT      0.17053   0.15213   0.32357   0.22088  -0.13761   0.21731  -0.24947   0.00576  -0.14248  -0.01614   0.83932   0.52573   0.95500
             0.1644    0.2155    0.0071    0.0703    0.2631    0.0751    0.0402    0.9628    0.2464    0.8960    0.0001    0.0001    0.0001
                 68        68        68        68        68        68        68        68        68        68        68        68        68

STUTEAR     0.23328   0.25026   0.28559   0.22973  -0.21657   0.27048  -0.25564  -0.12808  -0.21950   0.32305   0.70459   0.61427   0.53112
             0.0556    0.0396    0.0182    0.0595    0.0761    0.0257    0.0354    0.2979    0.0721    0.0072    0.0001    0.0001    0.0001
                 68        68        68        68        68        68        68        68        68        68        68        68        68

PRSCHEX    -0.16397  -0.07284  -0.07382  -0.18797   0.19428  -0.09114   0.19135  -0.28650   0.02456   0.20399  -0.06983  -0.18520  -0.00456
             0.1849    0.5580    0.5527    0.1277    0.1152    0.4633    0.1209    0.0188    0.8436    0.0978    0.5745    0.1335    0.9708
                 67        67        67        67        67        67        67        67        67        67        67        67        67

PRADMPER    0.07594   0.12919  -0.12627   0.21575  -0.34353   0.20280  -0.10808   0.12966  -0.23347   0.06975   0.03705   0.01866  -0.11238
             0.5414    0.2974    0.3086    0.0795    0.0044    0.0998    0.3840    0.2957    0.0572    0.5749    0.7659    0.8808    0.3653
                 67        67        67        67        67        67        67        67        67        67        67        67        67
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                                               S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:18 FRIDAY, JUNE 11, 1982
                                    CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

              MOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYBUS    TCOUNT

LDEDEGRE    0.29181   0.26175   0.10844   0.37614  -0.13814   0.36584  -0.31146   0.04703  -0.16270   0.20309   0.28396   0.49094   0.33470
             0.0158    0.0311    0.3787    0.0016    0.2613    0.0022    0.0097    0.7033    0.1850    0.0967    0.0189    0.0001    0.0053
                 68        68        68        68        68        68        68        68        68        68        68        68        68

SCHPREST   -0.31903  -0.32975   0.15591  -0.46915   0.47868  -0.51622   0.39748  -0.12755   0.47345  -0.18113  -0.10301  -0.08274  -0.13494
             0.0080    0.0060    0.2042    0.0001    0.0001    0.0001    0.0008    0.3000    0.0001    0.1393    0.4032    0.5024    0.2726
                 68        68        68        68        68        68        68        68        68        68        68        68        68

             SCOUNT   STUTEAR   PRSCHEX  PRADMPER  LDEDEGRE  SCHPREST

MSEX        0.65855   0.60958  -0.14406  -0.02249   0.48700  -0.07296
             0.0001    0.0001    0.2448    0.8566    0.0001    0.5543
                 68        68        67        67        68        68

MRACE      -0.05084  -0.04853  -0.02374  -0.23313  -0.08602   0.61928
             0.6805    0.6943    0.8488    0.0576    0.4855    0.0001
                 68        68        67        67        68        68

MCADDEXP    0.31819   0.35154   0.15839  -0.20537   0.50224   0.02021
             0.0082    0.0033    0.2005    0.0955    0.0001    0.8701
                 68        68        67        67        68        68

MNTECHSC    0.10227   0.07971  -0.04159   0.24732   0.15940  -0.67436
             0.4066    0.5182    0.7383    0.0436    0.1941    0.0001
                 68        68        67        67        68        68

MNTEARSC   -0.22997  -0.23043   0.02417   0.25704  -0.17054  -0.46982
             0.0592    0.0587    0.8461    0.0357    0.1644    0.0001
                 68        68        67        67        68        68

MADPERAT   -0.10767  -0.10910   0.04942  -0.21645  -0.05824  -0.04438
             0.3821    0.3758    0.6912    0.0785    0.6371    0.7193
                 68        68        67        67        68        68

MHIDEGRE    0.50128   0.47617  -0.07647   0.00400   0.74642  -0.36444
             0.0001    0.0001    0.5385    0.9744    0.0001    0.0022
                 68        68        67        67        68        68

MABSEXP    -0.25520  -0.16437   0.00876  -0.23649  -0.37235   0.34309
             0.0357    0.1804    0.9439    0.0540    0.0018    0.0042
                 68        68        67        67        68        68

MABSUNEX   -0.09946   0.05316  -0.12254   0.10231  -0.12178  -0.01684
             0.4197    0.6668    0.3232    0.4100    0.3225    0.8916
                 68        68        67        67        68        68

MSALAMT     0.47225   0.60031   0.05732  -0.13473   0.61286   0.08214
             0.0001    0.0001    0.6450    0.2770    0.0001    0.5055
                 68        68        67        67        68        68

MTOTEXP     0.41794   0.42478   0.11079  -0.19758   0.52187  -0.04940
             0.0004    0.0003    0.3721    0.1090    0.0001    0.6891
                 68        68        67        67        68        68
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                                       S T A T I S T I C A L   A N A L Y S I S   S Y S T E M         15:18 FRIDAY, JUNE 11, 1982

                               CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                  SCOUNT   STUTEAR   PRSCHEX PRADHPER LDEDEGRE SCHPREST

      MAGE       0.33887   0.31944   0.16930 -0.15100  0.40433 -0.07032
                  0.0047    0.0079    0.1708   0.2226   0.0006   0.5688
                      68        68        67       67       68       68

      MSCHEXP    0.49476   0.50000   0.16497 -0.18332  0.50911  0.01712
                  0.0001    0.0001    0.1822   0.1376   0.0001   0.8898
                      68        68        67       67       68       68

      MOMED      0.17053   0.23328  -0.16397  0.07594  0.29181 -0.31903
                  0.1644    0.0556    0.1849   0.5414   0.0158   0.0080
                      68        68        67       67       68       68

      POPED      0.15213   0.25026  -0.07204  0.12919  0.26175 -0.32975
                  0.2155    0.0396    0.5580   0.2974   0.0311   0.0060
                      68        68        67       67       68       68

      SIBS       0.32357   0.28559  -0.07382 -0.12627  0.10844  0.15591
                  0.0071    0.0182    0.5527   0.3086   0.3787   0.2042
                      68        68        67       67       68       68

      PCTHPRO    0.22080   0.22973  -0.18797  0.21575  0.37614 -0.46915
                  0.0703    0.0595    0.1277   0.0795   0.0016   0.0001
                      68        68        67       67       68       68

      PCTHNPRO  -0.13761  -0.21657   0.19428 -0.34353 -0.13814  0.47868
                  0.2631    0.0761    0.1152   0.0044   0.2613   0.0001
                      68        68        67       67       68       68

      PCTFPRO    0.21731   0.27048  -0.09114  0.20280  0.36584 -0.51622
                  0.0751    0.0257    0.4633   0.0998   0.0022   0.0001
                      68        68        67       67       68       68

      PCTFNPRO  -0.24947  -0.25564   0.19135 -0.10808 -0.31146  0.39748
                  0.0402    0.0354    0.1209   0.3840   0.0097   0.0008
                      68        68        67       67       68       68

      SCHSEX     0.00576  -0.12808  -0.28650  0.12966  0.04703 -0.12755
                  0.9628    0.2979    0.0188   0.2957   0.7033   0.3000
                      68        68        67       67       68       68

      SCHRACE   -0.14248  -0.21950   0.02456 -0.23347 -0.16270  0.47345
                  0.2464    0.0721    0.8436   0.0572   0.1850   0.0001
                      68        68        67       67       68       68

      SCHSPEED  -0.01614   0.32305   0.20399  0.06975  0.20309 -0.18113
                  0.8960    0.0072    0.0978   0.5749   0.0967   0.1393
                      68        68        67       67       68       68

      SCHDROP    0.83932   0.70459  -0.06983  0.03705  0.28396 -0.10301
                  0.0001    0.0001    0.5745   0.7659   0.0189   0.4032
                      68        68        67       67       68       68
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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:18 FRIDAY, JUNE 11, 1982

                    CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

               SCOUNT   STUTEAR   PRSCHEX  PRABNPER  LDEDEGRE  SCHPREST

SCHBYSUS      0.52573   0.61427  -0.18520   0.01866   0.49094  -0.08274
               0.0001    0.0001    0.1335    0.8808    0.0001    0.5024
                   68        68        67        67        68        68

TCOUNT        0.95500   0.53112  -0.00456  -0.11238   0.33470  -0.13494
               0.0001    0.0001    0.9708    0.3653    0.0053    0.2726
                   68        68        67        67        68        68

SCOUNT        1.00000   0.72878  -0.02558  -0.07891   0.38467  -0.12776
               0.0000    0.0001    0.8372    0.5256    0.0012    0.2992
                   68        68        67        67        68        68

STUTEAR       0.72878   1.00000   0.00515  -0.01301   0.40352  -0.04261
               0.0001    0.0000    0.9670    0.9168    0.0006    0.7301
                   68        68        67        67        68        68

PRSCHEX      -0.02558   0.00515   1.00000  -0.42695   0.06008   0.15658
               0.8372    0.9670    0.0000    0.0003    0.6291    0.2058
                  ·67        67        67        67        67        67

PRABNPER     -0.07891  -0.01301  -0.42695   1.00000  -0.08139  -0.31511
               0.5256    0.9168    0.0003    0.0000    0.5126    0.0094
                   67        67        67        67        67        67

LDEDEGRE      0.38467   0.40352   0.06008  -0.08139   1.00000  -0.18445
               0.0012    0.0006    0.6291    0.5126    0.0000    0.1321
                   68        68        67        67        68        68

SCHPREST     -0.12776  -0.04261   0.15658  -0.31511  -0.18445   1.00000
               0.2992    0.7301    0.2058    0.0094    0.1321    0.0000
                   68        68        67        67        68        68
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Appendix Five

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                              S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:23 FRIDAY, JUNE 11, 1982
VARIABLE      N            MEAN            STD DEV               SUM           MINIMUM           MAXIMUM

APCMATH      68     76.29546268        10.74147202      5188.0914622       52.35038610       96.21093750
APCREAD      68     80.44001763         8.62862479      5469.9211991       62.92534722       90.53515625
APCWRIT      68     78.94924868         8.42469800      5368.5489100       56.82762201       96.77734375
MSEX         68      0.15896133         0.13930289        10.8093704                 0        0.48076923
MRACE        68      0.49515098         0.12842469        33.6702667        0.21052632        0.81818182
MCADDEXP     68      9.17533080         1.87292587       623.9224944        4.50000000       15.06896552
MMTECHSC     68    545.94841113        25.21680250     37124.4919567      495.66666667      617.73333333
MMTEARSC     68    583.54756070        25.98193758     39681.2341279      533.97435897      666.20000000
MADPERAT     68      1.09123722         0.08339461        74.2041312        1.00000000        1.40000000
MMIDEGRE     68      2.43480742         0.27198706       165.5669048        1.57575758        3.04347826
MABSEXP      68      7.51482827         1.56664432       511.0083226        3.14705882       10.75000000
MABSUNEX     68      0.04428660         0.08505428         3.0114890                 0        0.56521739
MSALAIT      68  17351.62108602       533.95097938   1179910.2338495    16121.17647059    18260.18518519
MTOTEXP      68     10.71179941         1.96771923       728.4023597        5.95454545       16.48275862
MAGE         68     38.70586250         2.15931916      2631.9986499       31.38095238       44.34482759
MSCHEXP      68      5.73141891         1.35684506       389.7364857        3.45454545        9.10344828
MOMED        68      3.88564218         0.30160689       264.2236679        3.14893617        4.50943396
POPED        68      3.88324540         0.36579099       264.0606874        2.92857143        4.64150943
SIBS         68      3.34785626         0.56806330       227.6542259        2.32941176        4.80733945
PCTKPRO      68      0.27418479         0.12772813        18.6445655        0.03571429        0.67924528
PCTMMPRO     68      0.33034410         0.12267037        22.4633987        0.07547170        0.61971831
PCTFPRO      68      0.21393226         0.16490207        14.5473939                 0        0.67924528
PCTFMPRO     68      0.58214507         0.12259674        39.5858645        0.26415094        0.81707317
SCHSEX       68      0.49089436         0.03005556        33.3808162        0.37022901        0.55277281
SCHRACE      68      0.56950295         0.35495134        38.7262003        0.01342282        1.00000000
SCHSPEED     68      0.05990446         0.06533015         4.0735034                 0        0.37022901
SCHDROP      68      0.01373418         0.03315858       [illegible]                 0        0.14156466
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                                     S T A T I S T I C A L   A N A L Y S I S   S Y S T E M      15:23 FRIDAY, JUNE 11, 1982

VARIABLE      N              MEAN              STD DEV                 SUM              MINIMUM             MAXIMUM

SCHDYSUS     68        0.32847934           0.40990776          22.3365954                    0          1.58637084
TCOUNT       68       24.41176471          13.15945298        1660.0000000           7.00000000         77.00000000
SCOUNT       68      710.33823529         545.72691794       48303.0000000         187.00000000       2885.00000000
STUTEAR      68       27.30106917           6.37059396        1856.4727035          17.00000000         42.93333333
PRSCHEX      67        5.76119403           5.09036390         386.0000000           1.00000000         23.00000000
PRADMPER     67        3.44776119           3.06635497         231.0000000                    0          9.00000000
LOEDEGRE     68        2.72071880           0.18551905         185.0088782           2.31250000          3.13793103
SCHPREST     68        2.08718637           0.16898870         141.9286735           1.64705882          2.41176471

                    CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                                     APCMATH  APCREAD  APCWRIT

                         MSEX       -0.59157 -0.53027 -0.68978
                                      0.0001   0.0001   0.0001
                                          68       68       68

                         MRACE      -0.44595 -0.58135 -0.46581
                                      0.0001   0.0001   0.0001
                                          68       68       68

                         MCADDEXP   -0.11105 -0.03978 -0.12399
                                      0.3673   0.7474   0.3138
                                          68       68       68

                         MNTECHSC    0.38908  0.40997  0.27578
                                      0.0010   0.0005   0.0228
                                          68       68       68

                         MNTEARSC    0.55042  0.51938  0.44447
                                      0.0001   0.0001   0.0001
                                          68       68       68

                         MADPERAT   -0.10179 -0.12997 -0.06365
                                      0.4088   0.2908   0.6061
                                          68       68       68

                         MHIDEGRE   -0.09817  0.08051 -0.07131
                                      0.4258   0.5140   0.5634
                                          68       68       68

                         MARSEXP    -0.17316 -0.25026 -0.08825
                                      0.1579   0.0396   0.4742
                                          68       68       68
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        S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:23 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                     APCMATH  APCREAD  APCWRIT

          MABSUMEX   0.12054  0.06457  0.06171
                      0.3275   0.6009   0.6171
                          68       68       68

          MSALAMT   -0.31406 -0.26039 -0.36568
                      0.0091   0.0320   0.0022
                          68       68       68

          MTOTEXP   -0.14294 -0.06605 -0.18308
                      0.2449   0.5926   0.1351
                          68       68       68

          MAGE      -0.08246 -0.04596 -0.11675
                      0.5038   0.7098   0.3431
                          68       68       68

          MSCHEXP   -0.27662 -0.19750 -0.34213
                      0.0224   0.1064   0.0043
                          68       68       68

          MOMED      0.34071  0.49712  0.36486
                      0.0045   0.0001   0.0022
                          68       68       68

          POPED      0.42947  0.58955  0.45042
                      0.0003   0.0001   0.0001
                          68       68       68

          SIBS      -0.73577 -0.80917 -0.79300
                      0.0001   0.0001   0.0001
                          68       68       68

          PCTMPRO    0.37778  0.51129  0.35149
                      0.0015   0.0001   0.0033
                          68       68       68

          PCTMNPRO  -0.45704 -0.59036 -0.39727
                      0.0001   0.0001   0.0008
                          68       68       68

          PCTFPRO    0.40253  0.55454  0.39663
                      0.0007   0.0001   0.0008
                          68       68       68

          PCTFNPRO  -0.28753 -0.31876 -0.20331
                      0.0174   0.0081   0.0963
                          68       68       68

          SCHSEX     0.06803  0.12711  0.08056
                      0.5815   0.3016   0.5137
                          68       68       68
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              S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:23 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

                           APCMATH  APCREAD  APCWRIT

                 SCHRACE  -0.49826 -0.67633 -0.51385
                            0.0001   0.0001   0.0001
                                68       68       68

                 SCHSPEED  0.05232  0.11229  0.16942
                            0.6718   0.3619   0.1672
                                68       68       68

                 SCHDROP  -0.27439 -0.37459 -0.66168
                            0.0236   0.0016   0.0001
                                68       68       68

                 SCHDYSUS -0.68040 -0.55194 -0.58516
                            0.0001   0.0001   0.0001
                                68       68       68

                 TCOUNT   -0.21116 -0.23518 -0.50740
                            0.0839   0.0535   0.0001
                                68       68       68

                 SCOUNT   -0.25173 -0.27643 -0.56339
                            0.0384   0.0225   0.0001
                                68       68       68

                 STUTEAR  -0.26909 -0.23007 -0.43402
                            0.0265   0.0591   0.0002
                                68       68       68

                 PRSCHEX   0.00576  0.03037  0.00938
                            0.9631   0.8072   0.9399
                                67       67       67

                 PRADMPER  0.25169  0.24922  0.16865
                            0.0399   0.0420   0.1725
                                67       67       67

                 LOEDEGRE -0.19095 -0.03851 -0.13768
                            0.1188   0.7552   0.2629
                                68       68       68

                 SCHPREST -0.26874 -0.34691 -0.23635
                            0.0267   0.0038   0.0523
                                68       68       68
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Appendix Six

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                              S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:10 FRIDAY, JUNE 11, 1982
VARIABLE       N             MEAN           STD DEV                SUM            MINIMUM            MAXIMUM


MSEX          28       0.29798806        0.11231258         8.34366571         0.07812500         0.40076923
MRACE         28       0.48849429        0.12909539        13.67784001         0.21052632         0.72222222
MCADDEXP      28       9.36926908        1.74396954       262.33953430         5.60000000        12.00000000
MNTECHSC      28     546.62149533       26.32297165     15305.40186927       495.66666667       612.26086957
MNTEARSC      28     572.86390679       21.71793180     16040.18939023       533.97435897       611.69565217
MADPERAT      28       1.09961394        0.07528378        30.78919020         1.00000000         1.29411765
MHIDEGRE      28       2.57898885        0.23989210        72.21168793         1.95000000         3.04347826
MABSEXP       28       7.15714172        1.57816444       200.39996810         3.14705882        10.75000000
MABSUNEX      28       0.02833312        0.04122271         0.79332740                  0         0.13513514
MBALANT       28   17552.58932073      640.89454329    491472.50098043     16243.38888889     18257.96629213
MTOTEXP       28      11.07003109        1.99884538       309.96087048         6.28000000        14.18478261
MAGE          28      38.99880418        1.91146960      1091.96651691        33.40000000        42.00000000
MSCHEXP       28       6.31732076        1.35097214       176.88498133         3.68000000         8.49350649
MOMED         28       3.85788814        0.29614191       108.02086785         3.17857143         4.46698113
POPED         28       3.80827236        0.42089050       106.63162607         2.64000000         4.61057692
SIBS          28       3.77035326        0.46024617       105.56989130         2.96103896         4.80733945
PCTMPRO       28       0.28439992        0.10603755         7.96319777         0.03448276         0.49767442
PCTMNPRO      28       0.31015663        0.11027009         8.68438556         0.12558140         0.54918033
PCTFPRO       28       0.23466562        0.15390009         6.57063728         0.03448276         0.67441860
PCTFNPRO      28       0.57710874        0.12968512        16.15904480         0.26511628         0.88000000
SCHSEX        28       0.49370687        0.02292207        13.82379240         0.45989305         0.54977376
SCHRACE       28       0.55664548        0.31079425        15.58607333         0.10539523         1.00000000
SCHSPEED      28       0.06331784        0.04746659         1.77289955                  0         0.17945545
SCHDROP       28       0.03295709        0.04556276         0.92279859                  0         0.14156466
SCHDYSUS      28       0.70796228        0.39312091        19.82294394         0.01357466         1.58637084
TCOUNT        28      31.00000000       16.97056275       868.00000000         9.00000000        77.00000000
SCOUNT        28    1034.71428571      714.56315882     28972.00000000       187.00000000      2885.00000000
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                            S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:10 FRIDAY, JUNE 11, 1982

VARIABLE    N              MEAN            STD DEV                 SUM            MINIMUM             MAXIMUM
STUTEAR    28       31.08061724         7.35926700        870.25728285        17.00000000         42.93333333
PRSCHEX    28        4.53571429         4.12294522        127.00000000         1.00000000         10.00000000
PRADMPER   28        3.57142857         3.01144202        100.00000000                  0          9.00000000
LDEDEGRE   28        2.80630531         0.20357647         78.57654857         2.31250000          3.13793103
SCHPREST   28        2.05423952         0.15863348         57.51870659         1.64705882          2.31250000

                      CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

              MSEX    MRACE MCADDEXP MNTECHSC MNTEARSC MADPERAT MHIDEGRE  MABSEXP MABSUNEX  MSALANT  MTOTEXP     MAGE MSCHEXP

MSEX       1.00000  0.23794  0.65892  0.08114 -0.23626 -0.17666  0.50759 -0.22838 -0.01222  0.64511  0.70371  0.63446  0.68250
            0.0000   0.2228   0.0001   0.6815   0.2261   0.3685   0.0058   0.2425   0.9508   0.0002   0.0001   0.0003   0.0001

MRACE      0.23794  1.00000  0.28074 -0.56808 -0.67083 -0.05671 -0.18506  0.61953  0.11486  0.35326  0.27308  0.20956  0.00596
            0.2228   0.0000   0.1479   0.0016   0.0001   0.7744   0.3458   0.0004   0.5606   0.0652   0.1597   0.2845   0.9760

MCADDEXP   0.65892  0.28074  1.00000 -0.09478 -0.32575 -0.09084  0.65020  0.03847  0.05102  0.92236  0.96872  0.84656  0.82364
            0.0001   0.1479   0.0000   0.6314   0.0907   0.6457   0.0002   0.8459   0.7965   0.0001   0.0001   0.0001   0.0001

MNTECHSC   0.08114 -0.56808 -0.09478  1.00000  0.79319 -0.13166  0.34939 -0.57659  0.08149 -0.08916 -0.01586  0.12935  0.08403
            0.6815   0.0016   0.6314   0.0000   0.0001   0.5042   0.0684   0.0013   0.6802   0.6518   0.9361   0.5118   0.6707

MNTEARSC  -0.23626 -0.67083 -0.32575  0.79319  1.00000  0.04805  0.00108 -0.35948 -0.01298 -0.39352 -0.27329 -0.12044 -0.16246
            0.2261   0.0001   0.0907   0.0001   0.0000   0.8082   0.9957   0.0603   0.9477   0.0383   0.1594   0.5416   0.4088

MADPERAT  -0.17666 -0.05671 -0.09084 -0.13166  0.04805  1.00000  0.00829  0.01952 -0.17492 -0.17327 -0.14800 -0.25901  0.02263
            0.3685   0.7744   0.6457   0.5042   0.8082   0.0000   0.9666   0.9215   0.3733   0.3779   0.4523   0.1832   0.9090

MHIDEGRE   0.50759 -0.18506  0.65020  0.34939  0.00108  0.00829  1.00000 -0.44430  0.17352  0.61741  0.67228  0.58894  0.70340
            0.0058   0.3458   0.0002   0.0684   0.9957   0.9666   0.0000   0.0179   0.3772   0.0005   0.0001   0.0010   0.0001

MABSEXP   -0.22838  0.61953  0.03847 -0.57659 -0.35948  0.01952 -0.44430  1.00000 -0.11369 -0.00252 -0.03243 -0.00668 -0.24239
            0.2425   0.0004   0.8459   0.0013   0.0603   0.9215   0.0179   0.0000   0.5646   0.9899   0.8699   0.9731   0.2140

MABSUNEX  -0.01222  0.11486  0.05102  0.08149 -0.01298 -0.17492  0.17352 -0.11369  1.00000  0.08386  0.09404  0.06578  0.09317
            0.9508   0.5606   0.7965   0.6802   0.9477   0.3733   0.3772   0.5646   0.0000   0.6714   0.6341   0.7395   0.6373

MSALANT   0.64511  0.35326  0.92236 -0.08916 -0.39352 -0.17327  0.61741 -0.00252  0.08386  1.00000  0.91805  0.84761  0.74266
            0.0002   0.0652   0.0001   0.6518   0.0383   0.3779   0.0005   0.9899   0.6714   0.0000   0.0001   0.0001   0.0001

MTOTEXP    0.70371  0.27308  0.96872 -0.01586 -0.27329 -0.14800  0.67228 -0.03243  0.09404  0.91805  1.00000  0.89941  0.86142
            0.0001   0.1597   0.0001   0.9361   0.1594   0.4523   0.0001   0.8699   0.6341   0.0001   0.0000   0.0001   0.0001

MAGE       0.63446  0.20956  0.84656  0.12935 -0.12044 -0.25901  0.58894 -0.00668  0.06578  0.84761  0.89941  1.00000  0.72303
            0.0003   0.2845   0.0001   0.5118   0.5416   0.1832   0.0010   0.9731   0.7395   0.0001   0.0001   0.0000   0.0001

MSCHEXP    0.68250  0.00596  0.82364  0.08403 -0.16246  0.02263  0.70340 -0.24239  0.09317  0.74266  0.86142  0.72303  1.00000
            0.0001   0.9760   0.0001   0.6707   0.4088   0.9090   0.0001   0.2140   0.6373   0.0001   0.0001   0.0001   0.0000
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                                  S T A T I S T I C A L   A N A L Y S I S   S Y S T E M          15:10 FRIDAY, JUNE 11, 1982

                                         CORRELATION COEFFICIENTS / PROB ? |R| UNDER H0:RHO=0 / N = 28

               MSEX     MRACE  MGADDEXP  MNTECHSC  MNTEARSC  MADPERAT  MNIDEGRE   MABSEXP  MABSUMEX   MSALAMT   MTOTEXP      MAGE   MSCHEXP

MOMED       0.19122  -0.26195   0.15697   0.37263  -0.00906  -0.21354   0.47601  -0.40860   0.20892   0.14134   0.16104   0.20525   0.17649
             0.3297    0.1781    0.4251    0.0508    0.9635    0.2752    0.0105    0.0309    0.2860    0.4731    0.4106    0.2947    0.3690

POPED       0.20348  -0.35505   0.22753   0.36509   0.01476  -0.15814   0.56055  -0.49498   0.28648   0.18393   0.21830   0.22279   0.30083
             0.2990    0.0637    0.2443    0.0561    0.9406    0.4216    0.0019    0.0074    0.1394    0.3488    0.2644    0.2545    0.1198

SIBS        0.39263   0.74816   0.24488  -0.32508  -0.37767  -0.06599  -0.19305   0.40062   0.01623   0.25149   0.26225   0.19616   0.12207
             0.0388    0.0001    0.2091    0.0914    0.0475    0.7387    0.3250    0.0346    0.9347    0.1967    0.1776    0.3171    0.5360

PCTMPRO     0.15917  -0.51093   0.03419   0.59744   0.25369  -0.12963   0.44912  -0.66878   0.16367   0.04245   0.04353   0.07954   0.17163
             0.4185    0.0055    0.8629    0.0008    0.1927    0.5109    0.0165    0.0001    0.4053    0.8302    0.8259    0.6874    0.3825

PCTNMPRO    0.16636   0.81297   0.31777  -0.51818  -0.54258   0.05263  -0.03034   0.62595   0.15654   0.25417   0.31364   0.17539   0.10911
             0.3975    0.0001    0.0994    0.0047    0.0029    0.7902    0.8782    0.0004    0.4263    0.1918    0.1041    0.3720    0.5805

PCTFPRO     0.08447  -0.57639  -0.00366   0.63831   0.32420  -0.14862   0.37830  -0.57369   0.02299  -0.01318  -0.02553   0.10658   0.09258
             0.6691    0.0013    0.9853    0.0003    0.0924    0.4504    0.0471    0.0014    0.9076    0.9469    0.8974    0.5893    0.6394

PCTFKPRO   -0.35593   0.27404  -0.30383  -0.56972  -0.13325   0.17734  -0.56246   0.46917  -0.18240  -0.25379  -0.30260  -0.37762  -0.33359
             0:0630    0.1582    0.1160    0.0016    0.4991    0.3666    0.0018    0.0118    0.3529    0.1925    0.1175    0.0476    0.0828

SCHSEX      0.00203  -0.14007  -0.08504   0.24209   0.16043   0.10513   0.23477  -0.22011   0.34995  -0.19958  -0.13822  -0.20090  -0.01407
             0.9918    0.4771    0.6670    0.2145    0.4148    0.5944    0.2292    0.2604    0.0679    0.3086    0.4830    0.3053    0.9434

SCHRACE     0.24226   0.89742   0.25338  -0.46719  -0.53636  -0.03285  -0.17625   0.55022   0.01777   0.24912   0.26447   0.21229   0.01907
             0.2142    0.0001    0.1933    0.0122    0.0033    0.8682    0.3696    0.0024    0.9285    0.2011    0.1738    0.2781    0.9233

SCHSPEED   -0.00685  -0.18013   0.34301   0.15646  -0.09636  -0.17772   0.40797  -0.04538   0.12036   0.38952   0.29146   0.38231   0.26559
             0.9724    0.3590    0.0739    0.4266    0.6257    0.3656    0.0312    0.8186    0.5418    0.0405    0.1324    0.0447    0.1720

SCHDROP     0.63790   0.05026   0.47862   0.11199  -0.05540  -0.19788   0.30316  -0.12855  -0.01575   0.47340   0.50223   0.49147   0.50235
             0.0003    0.7995    0.0100    0.5705    0.7795    0.3128    0.1168    0.5144    0.9366    0.0109    0.0065    0.0079    0.0065

SCHDYSUB    0.31480   0.44256   0.57231  -0.08260  -0.34925  -0.16025   0.39232   0.16732   0.31316   0.62411   0.52891   0.45907   0.37987
             0.1028    0.0184    0.0015    0.6760    0.0685    0.4153    0.0389    0.3947    0.1047    0.0004    0.0039    0.0140    0.0462

TCOUNT      0.50153  -0.03836   0.31588   0.25972   0.04977  -0.28696   0.42057  -0.16824   0.15129   0.33586   0.40154   0.45509   0.43741
             0.0066    0.8463    0.1015    0.1820    0.8014    0.1387    0.0258    0.3921    0.4422    0.0806    0.0342    0.0150    0.0199

SCOUNT      0.55581  -0.01301   0.43527   0.20511  -0.04262  -0.28618   0.46588  -0.19168   0.14083   0.47697   0.49941   0.52333   0.53390
             0.0021    0.9476    0.0206    0.2951    0.8295    0.1398    0.0125    0.3285    0.4747    0.0103    0.0068    0.0043    0.0034

STUTEAR     0.55465   0.05557   0.66697   0.02381  -0.28982  -0.18372   0.51002  -0.20687   0.15143   0.73253   0.66669   0.60585   0.66128
             0.0022    0.7788    0.0001    0.9043    0.1347    0.3494    0.0056    0.2909    0.4418    0.0001    0.0001    0.0006    0.0001

PRSCHEX     0.12615  -0.14285   0.15640  -0.08015  -0.08080   0.51507   0.34462  -0.23024   0.10256   0.10297   0.21547   0.12802   0.43203
             0.5224    0.4683    0.4268    0.6852    0.6827    0.0050    0.0725    0.2385    0.6035    0.6021    0.2708    0.5162    0.0217

PRADMPER   -0.12490  -0.30165  -0.13736   0.33191   0.36486  -0.34937  -0.16457  -0.22293  -0.05935  -0.11253  -0.14321   0.00787  -0.20367
             0.5266    0.1188    0.4858    0.0844    0.0563    0.0684    0.4027    0.2542    0.7642    0.5686    0.4672    0.9683    0.2986

LDEDEGRE    0.41927  -0.07261   0.56556   0.38593  -0.01153  -0.10021   0.87167  -0.37203   0.17325   0.59319   0.55968   0.51074   0.57074
             0.0264    0.7135    0.0017    0.0425    0.9536    0.6119    0.0001    0.0512    0.3780    0.0009    0.0020    0.0055    0.0015
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                                    S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:10 FRIDAY, JUNE 11, 1982

                                 CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / N = 28

                MSEX     MRACE  MCADDEXP MNITECHSC MNITEARSC  MADPERAT  MHIDEGRE   MABSEXP  MABSUMEX   MSALAMT   MTOTEXP      MAGE   MSCHEXP

SCHPREST     0.09271   0.59000   0.14116  -0.85000  -0.76444   0.06178  -0.31067   0.54700   0.00812   0.20126   0.12399   0.06747   0.01009
              0.6389    0.0008    0.4737    0.0001    0.0001    0.7548    0.1076    0.0026    0.9673    0.3044    0.5296    0.7330    0.9594

               MOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYSUB    TCOUNT

MSEX         0.19122   0.20348   0.39263   0.15917   0.16636   0.08447  -0.35593   0.00203   0.24226  -0.00685   0.63790   0.31480   0.50153
              0.3297    0.2990    0.0388    0.4185    0.3975    0.6691    0.0630    0.9918    0.2142    0.9724    0.0003    0.1028    0.0066

MRACE       -0.26195  -0.35505   0.74816  -0.51093   0.81297  -0.57639   0.27404  -0.14007   0.89742  -0.18013   0.05026   0.44256  -0.03836
              0.1781    0.0637    0.0001    0.0055    0.0001    0.0013    0.1582    0.4771    0.0001    0.3590    0.7995    0.0184    0.8463

MCADDEXP     0.15697   0.22753   0.24488   0.03419   0.31777  -0.00366  -0.30383  -0.08504   0.25338   0.34301   0.47862   0.57231   0.31588
              0.4251    0.2443    0.2091    0.8629    0.0994    0.9853    0.1160    0.6670    0.1933    0.0739    0.0100    0.0015    0.1015

MNITECHSC    0.37263   0.36509  -0.32508   0.99744  -0.51818   0.63831  -0.56972   0.24209  -0.46719   0.15646   0.11199  -0.08260   0.25972
              0.0508    0.0561    0.0914    0.0008    0.0047    0.0003    0.0016    0.2145    0.0122    0.4266    0.5705    0.6760    0.1820

MNITEARSC   -0.00906   0.01476  -0.37767   0.25369  -0.54250   0.32420  -0.13325   0.16043  -0.53636  -0.09636  -0.05540  -0.34925   0.04977
              0.9635    0.9406    0.0475    0.1927    0.0029    0.0924    0.4991    0.4148    0.0033    0.6257    0.7795    0.0685    0.8014

MADPERAT    -0.21354  -0.15814  -0.06599  -0.12963   0.05263  -0.14862   0.17734   0.10513  -0.03285  -0.17772  -0.19788  -0.16025  -0.28696
              0.2752    0.4216    0.7387    0.5109    0.7902    0.4504    0.3666    0.5944    0.8682    0.3656    0.3128    0.4153    0.1387

MHIDEGRE     0.47601   0.56055  -0.19305   0.44912  -0.03034   0.37830  -0.56246   0.23477  -0.17625   0.40797   0.30316   0.39232   0.42057
              0.0105    0.0019    0.3250    0.0165    0.8782    0.0471    0.0018    0.2292    0.3696    0.0312    0.1168    0.0389    0.0258

MABSEXP     -0.40860  -0.49496   0.40062  -0.66878   0.62595  -0.57369   0.46917  -0.22011   0.55022  -0.04538  -0.12855   0.16732  -0.16824
              0.0309    0.0074    0.0346    0.0001    0.0004    0.0014    0.0118    0.2604    0.0024    0.8186    0.5144    0.3947    0.3921

MABSUMEX     0.20892   0.28648   0.01623   0.16367   0.15654   0.02299  -0.18240   0.34995   0.01777   0.12036  -0.01575   0.31316   0.15129
              0.2860    0.1394    0.9347    0.4053    0.4263    0.9076    0.3529    0.0679    0.9285    0.5418    0.9366    0.1047    0.4422

MSALAMT      0.14134   0.18393   0.25149   0.04245   0.25417  -0.01318  -0.25379  -0.19958   0.24912   0.38952   0.47340   0.62411   0.33586
              0.4731    0.3488    0.1967    0.8302    0.1918    0.9469    0.1925    0.3086    0.2011    0.0405    0.0109    0.0004    0.0806

MTOTEXP      0.16184   0.21830   0.26225   0.04353   0.31364  -0.02553  -0.30260  -0.13822   0.26447   0.29146   0.50223   0.52801   0.40154
              0.4106    0.2644    0.1776    0.8259    0.1041    0.8974    0.1175    0.4830    0.1738    0.1324    0.0065    0.0039    0.0342

MAGE         0.20525   0.22279   0.19616   0.07954   0.17539   0.10658  -0.37762  -0.20090   0.21229   0.38231   0.49147   0.45907   0.45509
              0.2947    0.2545    0.3171    0.6874    0.3720    0.5893    0.0476    0.3053    0.2781    0.0447    0.0079    0.0140    0.0150

MSCHEXP      0.17649   0.30083   0.12207   0.17163   0.10911   0.09258  -0.33359  -0.01407   0.01907   0.26559   0.50235   0.37987   0.43741
              0.3690    0.1198    0.5360    0.3825    0.5805    0.6394    0.0828    0.9434    0.9233    0.1720    0.0065    0.0462    0.0199

MOMED        1.00000   0.95732  -0.46695   0.84594  -0.16279   0.81015  -0.85446   0.34629  -0.37613   0.51045   0.01763   0.11612   0.29307
              0.0000    0.0001    0.0122    0.0001    0.4079    0.0001    0.0001    0.0710    0.0485    0.0055    0.9290    0.5563    0.1301

POPED        0.95732   1.00000  -0.54458   0.84939  -0.19319   0.79016  -0.82659   0.34794  -0.45814   0.55750   0.04620   0.16548   0.28758
              0.0001    0.0000    0.0027    0.0001    0.3246    0.0001    0.0001    0.0696    0.0142    0.0021    0.8154    0.4001    0.1378

SIBS        -0.46695  -0.54458   1.00000  -0.50247   0.53483  -0.56755   0.26313  -0.11308   0.81432  -0.37621   0.33145   0.27957   0.04695
              0.0122    0.0027    0.0000    0.0064    0.0034    0.0016    0.1761    0.5667    0.0001    0.0485    0.0849    0.1496    0.8125
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                                        S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:10 FRIDAY, JUNE 11, 1982

                                  CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

            HOMED     POPED      SIBS   PCTMPRO  PCTMNPRO   PCTFPRO  PCTFNPRO    SCHSEX   SCHRACE  SCHSPEED   SCHDROP  SCHDYBUS    TCOUNT

PCTMPRO   0.84594   0.84939  -0.50247   1.00000  -0.51567   0.90443  -0.83252   0.41925  -0.63610   0.40074   0.11672   0.07033   0.33891
           0.0001    0.0001    0.0064    0.0000    0.0050    0.0001    0.0001    0.0264    0.0003    0.0346    0.5542    0.7221    0.0777

PCTMNPRO -0.16279  -0.19319   0.53483  -0.51567   1.00000  -0.58353   0.25581  -0.10943   0.80725  -0.06355  -0.01131   0.40362  -0.04296
           0.4079    0.3246    0.0034    0.0050    0.0000    0.0011    0.1889    0.5794    0.0001    0.7480    0.9545    0.0332    0.8282

PCTFPRO   0.81015   0.79016  -0.56755   0.90443  -0.58353   1.00000  -0.86475   0.37743  -0.63798   0.49442   0.04382  -0.07543   0.21552
           0.0001    0.0001    0.0016    0.0001    0.0011    0.0000    0.0001    0.0477    0.0003    0.0075    0.8248    0.7029    0.2707

PCTFNPRO -0.85446  -0.82659   0.26313  -0.83252   0.25581  -0.86475   1.00000  -0.33500   0.31841  -0.50595  -0.23956  -0.18312  -0.39192
           0.0001    0.0001    0.1761    0.0001    0.1889    0.0001    0.0000    0.0814    0.0907    0.0060    0.2195    0.3510    0.0391

SCHSEX    0.34629   0.34794  -0.11308   0.41925  -0.10943   0.37743  -0.33500   1.00000  -0.14122   0.01864  -0.18464   0.13086  -0.14244
           0.0710    0.0696    0.5667    0.0264    0.5794    0.0477    0.0814    0.0000    0.4735    0.9250    0.3469    0.5069    0.4697

SCHRACE  -0.37613  -0.45814   0.81432  -0.63610   0.80725  -0.63798   0.31841  -0.14122   1.00000  -0.27683   0.02444   0.32308  -0.15386
           0.0485    0.0142    0.0001    0.0003    0.0001    0.0003    0.0907    0.4735    0.0000    0.1538    0.9017    0.0935    0.4344

SCHSPEED  0.51045   0.55750  -0.37621   0.40074  -0.06355   0.49442  -0.50595   0.01864  -0.27683   1.00000  -0.07109   0.38356  -0.05604
           0.0055    0.0021    0.0485    0.0346    0.7480    0.0075    0.0060    0.9250    0.1538    0.0000    0.7193    0.0439    0.7770

SCHDROP   0.01763   0.04620   0.33145   0.11672  -0.01131   0.04382  -0.23956  -0.18464   0.02444  -0.07109   1.00000   0.25359   0.73328
           0.9290    0.8154    0.0849    0.5542    0.9545    0.8248    0.2195    0.3469    0.9017    0.7193    0.0000    0.1929    0.0001

SCHDYBUS  0.11612   0.16548   0.27957   0.07033   0.40362  -0.07543  -0.18312   0.13086   0.32308   0.38356   0.25359   1.00000   0.21299
           0.5563    0.4001    0.1496    0.7221    0.0332    0.7029    0.3510    0.5069    0.0935    0.0439    0.1929    0.0000    0.2765

TCOUNT    0.29307   0.28758   0.04695   0.33891  -0.04296   0.21552  -0.39192  -0.14244  -0.15386  -0.05604   0.73328   0.21299   1.00000
           0.1301    0.1378    0.8125    0.0777    0.8282    0.2707    0.0391    0.4697    0.4344    0.7770    0.0001    0.2765    0.0000

SCOUNT    0.28583   0.30174   0.08350   0.33506  -0.06010   0.21934  -0.39680  -0.18469  -0.15056   0.01153   0.82039   0.28109   0.96479
           0.1404    0.1186    0.6727    0.0813    0.7613    0.2621    0.0366    0.3468    0.4444    0.9536    0.0001    0.1473    0.0001

STUTEAR   0.31722   0.40001   0.07383   0.29623   0.04558   0.20676  -0.40456  -0.31487  -0.08586   0.37697   0.71777   0.47950   0.59134
           0.1000    0.0349    0.7089    0.1259    0.8178    0.2911    0.0327    0.1027    0.6640    0.0480    0.0001    0.0098    0.0009

PRSCHEX  -0.20544  -0.07138   0.04290  -0.14988   0.01890  -0.21419   0.14744  -0.15831   0.00407  -0.05143   0.05973  -0.14181   0.03599
           0.2943    0.7181    0.8284    0.4465    0.9240    0.2738    0.4540    0.4210    0.9836    0.7949    0.7627    0.4716    0.8557

PRADMPER  0.22281   0.18365  -0.28009   0.29220  -0.39597   0.33479  -0.16845   0.28744  -0.26275   0.08999   0.03958  -0.00899  -0.11523
           0.2544    0.3495    0.1488    0.1313    0.0370    0.0816    0.3915    0.1380    0.1767    0.6488    0.8415    0.9638    0.5593

LDEDEGRE  0.46790   0.54522  -0.14965   0.42487   0.04105   0.41472  -0.55002   0.25655  -0.07069   0.52443   0.15241   0.42346   0.23921
           0.0120    0.0027    0.4472    0.0242    0.8357    0.0282    0.0024    0.1876    0.7208    0.0042    0.4388    0.0247    0.2202

SCHPREST -0.31583  -0.29976   0.29679  -0.57421   0.52935  -0.57982   0.47270  -0.45082   0.48594  -0.06195  -0.03515   0.10416  -0.11901
           0.1016    0.1212    0.1251    0.0014    0.0038    0.0012    0.0111    0.0161    0.0088    0.7541    0.8591    0.5979    0.5464

           SCOUNT   STUTEAR   PRSCHEX  PRADMPER  LDEDEGRE  SCHPREST

HSEX      0.55581   0.55465   0.12615  -0.12490   0.41927   0.09271
           0.0021    0.0022    0.5224    0.5266    0.0264    0.6389
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                                    S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:10 FRIDAY, JUNE 11, 1982

                                CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

               SCOUNT   STUTEAR   PRSCHEX  PRADMPER  LDEDEGRE  SCHPREST

MRACE        -0.01301   0.05557  -0.14285  -0.30165  -0.07261   0.59880
               0.9476    0.7788    0.4683    0.1188    0.7135    0.0008

MCADDEXP      0.43527   0.66697   0.15640  -0.13736   0.56556   0.14116
               0.0206    0.0001    0.4268    0.4858    0.0017    0.4737

MNTECHSC      0.20511   0.02381  -0.08015   0.33191   0.38593  -0.85800
               0.2951    0.9043    0.6852    0.0844    0.0425    0.0001

MNTEARSC     -0.04262  -0.28982  -0.08080   0.36486  -0.01153  -0.76444
               0.8295    0.1347    0.6827    0.0563    0.9536    0.0001

MADPERAT     -0.28618  -0.18372   0.51507  -0.34937  -0.10021   0.06178
               0.1398    0.3494    0.0050    0.0684    0.6119    0.7548

MHIDEGRE      0.46588   0.51002   0.34462  -0.16457   0.87167  -0.31067
               0.0125    0.0056    0.0725    0.4027    0.0001    0.1076

MABSEXP      -0.19468  -0.20687  -0.23024  -0.22293  -0.37203   0.54700
               0.3205    0.2909    0.2385    0.2542    0.0512    0.0026

MABSUNEX      0.14003   0.15143   0.10256  -0.05935   0.17325   0.00812
               0.4747    0.4418    0.6035    0.7642    0.3780    0.9673

MSALAMT       0.47697   0.73253   0.10297  -0.11253   0.59319   0.20126
               0.0103    0.0001    0.6021    0.5686    0.0009    0.3044

MTOTEXP       0.49941   0.66669   0.21547  -0.14321   0.55968   0.12399
               0.0068    0.0001    0.2708    0.4672    0.0020    0.5296

MAGE          0.52333   0.60585   0.12802   0.00787   0.51074   0.06747
               0.0043    0.0006    0.5162    0.9683    0.0055    0.7330

MSCHEXP       0.53390   0.66128   0.43203  -0.20367   0.57074   0.01009
               0.0034    0.0001    0.0217    0.2986    0.0015    0.9594

MOMED         0.28583   0.31722  -0.20544   0.22281   0.46790  -0.31583
               0.1404    0.1000    0.2943    0.2544    0.0120    0.1016

POPED         0.30174   0.40001  -0.07138   0.18365   0.54522  -0.29976
               0.1186    0.0349    0.7181    0.3495    0.0027    0.1212

SIBS          0.08350   0.07383   0.04290  -0.28009  -0.14965   0.29679
               0.6727    0.7089    0.8284    0.1488    0.4472    0.1251

PCTMPRO       0.33506   0.29623  -0.14988   0.29220   0.42487  -0.57421
               0.0813    0.1259    0.4465    0.1313    0.0242    0.0014

PCTMNPRO     -0.06010   0.04558   0.01890  -0.39597   0.04105   0.52935
               0.7613    0.8178    0.9240    0.0370    0.8357    0.0038

PCTFPRO       0.21934   0.20676  -0.21419   0.33479   0.41472  -0.57982
               0.2621    0.2911    0.2738    0.0816    0.0282    0.0012
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                                    S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:10 FRIDAY, JUNE 11, 1982

                              CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / N = 28

             SCOUNT   STUTEAR  PRSCHEX PRADMPER LDEDEGRE SCHPREST

PCTFRPRO   -0.39680  -0.40456  0.14744 -0.16845 -0.55002  0.47270
             0.0366    0.0327   0.4540   0.3915   0.0024   0.0111

SCHSEX     -0.18469  -0.31487 -0.15831  0.28744  0.25655 -0.45082
             0.3468    0.1027   0.4210   0.1380   0.1876   0.0161

SCHRACE    -0.15056  -0.08586  0.00407 -0.26275 -0.07069  0.48594
             0.4444    0.6640   0.9836   0.1767   0.7208   0.0088

SCHSPEED    0.01153   0.37697 -0.05143  0.08999  0.52443 -0.06195
             0.9536    0.0480   0.7949   0.6486   0.0042   0.7541

SCHDROP     0.82039   0.71777  0.05973  0.03958  0.15241 -0.03515
             0.0001    0.0001   0.7627   0.8415   0.4388   0.8591

SCHDVSUS    0.28109   0.47950 -0.14181 -0.00899  0.42346  0.10416
             0.1473    0.0098   0.4716   0.9638   0.0247   0.5979

TCOUNT      0.96479   0.59134  0.03599 -0.11523  0.23921 -0.11901
             0.0001    0.0009   0.8557   0.5593   0.2202   0.5464

SCOUNT      1.00000   0.75542  0.06091 -0.11070  0.29105 -0.06363
             0.0000    0.0001   0.7582   0.5750   0.1329   0.7477

STUTEAR     0.75542   1.00000  0.15147 -0.13868  0.40951  0.14163
             0.0001    0.0000   0.4417   0.4816   0.0305   0.4722

PRSCHEX     0.06091   0.15147  1.00000 -0.59234  0.16907  0.15825
             0.7582    0.4417   0.0000   0.0009   0.3898   0.4212

PRADMPER   -0.11070  -0.13868 -0.59234  1.00000 -0.12269 -0.40499
             0.5750    0.4816   0.0009   0.0000   0.5340   0.0325

LDEDEGRE    0.29105   0.40951  0.16907 -0.12269  1.00000 -0.33751
             0.1329    0.0305   0.3898   0.5340   0.0000   0.0790

SCHPREST   -0.06363   0.14163  0.15825 -0.40499 -0.33751  1.00000
             0.7477    0.4722   0.4212   0.0325   0.0790   0.0000
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Appendix Seven

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                         S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:22 FRIDAY, JUNE 11, 1982

VARIABLE     N             MEAN          STD DEV               SUM           MINIMUM           MAXIMUM

APCMATH     28      66.72602321       9.76152866     1868.32864984       52.35038610       87.17213115
APCREAD     28      75.05220471       8.29341802     2101.46173176       62.92534722       89.89071038
APCWRIT     28      73.25056791       9.22823642     2051.01590143       56.82762201       90.20707071
MSEX        28       0.29798806       0.11231258        8.34366571        0.07812500        0.48076923
MRACE       28       0.48849429       0.12909539       13.67784001        0.21052632        0.72222222
MCADDEXP    28       9.36926908       1.74396954      262.33953430        5.60000000       12.00000000
MNTECMSC    28     546.62149533      26.32297165    15305.40186927      495.66666667      612.26086957
MNTEARSC    28     572.86390679      21.71793180    16040.18939023      533.97435897      611.69565217
MADPERAT    28       1.09961394       0.07528378       30.78919020        1.00000000        1.29411765
MHIDEGRE    28       2.57898885       0.23989210       72.21168793        1.95000000        3.04347826
MABSEXP     28       7.15714172       1.57816444      200.39996810        3.14705882       10.75000000
MABSUNEX    28       0.02833312       0.04122271        0.79332740                 0        0.13513514
MSALAMT     28   17552.58932073     640.89454329   491472.50098043    16243.38888889    18257.96629213
MTOTEXP     28      11.07003109       1.99884538      309.96087048        6.28000000       14.18478261
MAGE        28      38.99880418       1.91146960     1091.96651691       33.48000000       42.00000000
MSCHEXP     28       6.31732076       1.35097214      176.88498133        3.68000000        8.49350649
MOMED       28       3.85788814       0.29614191      108.02086785        3.17857143        4.46698113
POPED       28       3.80827236       0.42089050      106.63162607        2.64000000        4.61057692
SIBS        28       3.77035326       0.46024617      105.56989130        2.96103896        4.80733945
PCTMPRO     28       0.28439992       0.10603755        7.96319777        0.03448276        0.49767442
PCTMNPRO    28       0.31015663       0.11027009        8.68438556        0.12558140        0.54918033
PCTFPRO     28       0.23466562       0.15390009        6.57063728        0.03448276        0.67441860
PCTFNPRO    28       0.57710874       0.12968512       16.15904480        0.26511628        0.88000000
SCHSEX      28       0.49370687       0.02292207       13.82379240        0.45989305        0.54977376
SCHRACE     28       0.55664548       0.31079425       15.58607333        0.10539523        1.00000000
SCHSPEED    28       0.06331784       0.04746659        1.77289955                 0        0.17945545
SCHDROP     28       0.03295709       0.04556276        0.92279859                 0        0.14156466
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                  S T A T I S T I C A L   A N A L Y S I S   S Y S T E M       15:22 FRIDAY, JUNE 11, 1982    9

VARIABLE      N               MEAN             STD DEV                  SUM              MINIMUM              MAXIMUM

SCHDYSUS     28         0.70796228          0.39312091          19.82294394           0.01357466           1.50637084
TCOUNT       28        31.00000000         16.97056275         868.00000000           9.00000000          77.00000000
SCOUNT       28      1034.71428571        714.56315882       28972.00000000         187.00000000        2085.00000000
STUTEAR      28        31.08061724          7.35926700         870.25728285          17.00000000          42.93333333
PRSCHEX      28         4.53571429          4.12294522         127.00000000           1.00000000          18.00000000
PRADMPER     28         3.57142857          3.01144202         100.00000000                    0           9.00000000
LDEDEGRE     28         2.80630531          0.20357647          78.57654857           2.31250000           3.13793103
SCHPREST     28         2.05423952          0.15863348          57.51870659           1.64705882           2.31250000


               CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

                          APCMATH  APCREAD  APCWRIT

               MSEX       0.06027 -0.27564 -0.61675
                           0.7606   0.1557   0.0005

               MRACE     -0.74095 -0.82904 -0.58617
                           0.0001   0.0001   0.0011

               MCADDEXP  -0.14769 -0.30770 -0.44771
                           0.4533   0.1112   0.0169

               MMTECMSC   0.75955  0.64013  0.29384
                           0.0001   0.0002   0.1291

               MMTEARSC   0.65535  0.61452  0.39603
                           0.0001   0.0005   0.0370

               MADPERAT  -0.08277  0.06269  0.10673
                           0.6754   0.7513   0.5888

               MHIDEGRE   0.29206  0.22682 -0.04357
                           0.1315   0.2458   0.8257

               MABSEXP   -0.58601 -0.57552 -0.21829
                           0.0011   0.0014   0.2645

               MABSUNEX  -0.07402  0.01175 -0.03327
                           0.7082   0.9527   0.8665

               MSALAMT   -0.12492 -0.31399 -0.44665
                           0.5265   0.1037   0.0172

               MIOTEXP   -0.10468 -0.31276 -0.49393
                           0.5960   0.1051   0.0076
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      S T A T I S T I C A L   A N A L Y S I S   S Y S T E M        15:22 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

                     APCMATH  APCREAD  APCWRIT

          MAGE       0.06588 -0.23689 -0.43052
                      0.7391   0.2249   0.0222

          MSCHEXP    0.02753 -0.15182 -0.46455
                      0.8894   0.4406   0.0128

          MOMED      0.51497  0.54167  0.36863
                      0.0051   0.0029   0.0536

          POPED      0.48936  0.54878  0.34606
                      0.0082   0.0025   0.0712

          SIBS      -0.61623 -0.81929 -0.78640
                      0.0005   0.0001   0.0001

          PCTMPRO    0.67590  0.69306  0.35896
                      0.0001   0.0001   0.0607

          PCTMNPRO  -0.67756 -0.66193 -0.39789
                      0.0001   0.0001   0.0360

          PCTFPRO    0.79094  0.75803  0.47016
                      0.0001   0.0001   0.0116

          PCTFNPRO  -0.59846 -0.47886 -0.16261
                      0.0008   0.0099   0.4084

          SCHSEX     0.15971  0.29533  0.22693
                      0.4169   0.1271   0.2455

          SCHRACE   -0.74734 -0.85628 -0.60021
                      0.0001   0.0001   0.0007

          SCHSPEED   0.25037  0.31091  0.32494
                      0.1988   0.1073   0.0916

          SCHDROP    0.16389 -0.21147 -0.65035
                      0.4047   0.2800   0.0002

          SCHDYSUS  -0.32077 -0.31781 -0.31758
                      0.0961   0.0993   0.0996

          TCOUNT     0.32883  0.02563 -0.41309
                      0.0875   0.8970   0.0289

          SCOUNT     0.28640 -0.02272 -0.47011
                      0.1395   0.9086   0.0116

          STUYEAR    0.11614 -0.07992 -0.38849
                      0.5562   0.6860   0.0410

          PRSCHEX   -0.15634 -0.11615 -0.21019
                      0.4269   0.5561   0.2830
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      S T A T I S T I C A L   A N A L Y S I S   S Y S T E M         15:22 FRIDAY, JUNE 11, 1982
CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N = 28

                     APCMATH  APCREAD  APCWRIT

           PRADHPER  0.38245  0.33023  0.28224
                      0.0446   0.0861   0.1456

           LDEDEGRE  0.22798  0.18989  0.00534
                      0.2433   0.3331   0.9785

           SCHPREST -0.64512 -0.66172 -0.38159
                      0.0002   0.0001   0.0451
```

Appendix Eight

STUDENT QUESTIONNAIRE

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER ON THE RIGHT OF YOUR BEST ANSWER TO THE QUESTION. PICK ONLY ONE ANSWER FOR EACH QUESTION!!!

1. How old are you?

7 years old - 1.
8 years old - 2.
9 years old - 3.
10 years old - 4.
11 years old - 5.
12 years old - 6.
13 years old - 7.

2. Are you a boy or girl?

boy - 1.
girl - 2.

3. Including this year, how many years have you been at this school?

Less than 1 year - 1.
2 years - 2.
3 years - 3.
4 years - 4.
5 years - 5.
6 years - 6.
7 years or more - 7.

4. What is your race or ethnic group?

American Indian - 1.
Black American - 2.
White American - 3.
Spanish-surnamed American - 4.
Oriental American - 5.
Other - 6.

5. What kind of work does your father usually do?

Skilled Craftsman or Foreman
Semi-skilled worker - 1.
Unskilled Worker

Professional
Manager or Owner - 2.
Office or Sales

Stays at home - 3.
Deceased - 4.
I don't know - 5.

6. What kind or work does your mother usually do?

Skilled Craftsman or Foreman
Semi-skilled worker - 1.
Unskilled Worker

Professional
Manager or Owner - 2.
Office or Sales

Stays at home - 3.
Deceased - 4.
I don't know - 5.

7. How much schooling does your father have?

Finished fewer than eight years of school - 1.
Finished eighth grade but did not attend high school - 2.
Went to high school but did not graduate - 3.
Graduated from high school - 4.
Went to college - 5.
I don't know - 6.

8. How much schooling does your mother have?

Finished fewer than eight years of school - 1.
Finished eighth grade but did not attend high school - 2.
Went to high school but did not graduate - 3.
Graduated from high school - 4.
Went to college - 5.
I don't know - 6.

THE FOLLOWING QUESTIONS ARE TO BE ANSWERED BY CIRCLING THE NUMBER ON THE RIGHT OF THE CORRECT ANSWER. REMEMBER, NO ONE WILL SEE YOUR ANSWERS EXCEPT THOSE OF US FROM LOUISIANA STATE UNIVERSITY, SO PLEASE TELL US JUST WHAT YOU THINK. (Pick only one answer for each question.)

9. How far do you think you will go in school?

Finish grade school - 1.
Go to high school for a while - 2.
Finish high school - 3.
Go to college for a while - 4.
Finish college - 5.

10. How many students in this school try hard to get a good grade on their weekly tests?

Almost all of the students - 1.
Most of the students - 2.
Half of the students - 3.
Some of the students - 4.
Almost none of the students - 5.

11. How many students in this school will work hard to get a better grade on the weekly tests than their friends do?

Almost all of the students - 1.
Most of the students - 2.
Half of the students - 3.
Some of the students - 4.
Almost none of the students - 5.

12. How many students in this school don't care if they get bad grades?

Almost all of the students - 1.
Most of the students - 2.
Half of the students - 3.
Some of the students - 4.
Almost none of the students - 5.

13. How many students in this school do more studying for weekly tests than they have to?

Almost all of the students - 1.
Most of the students - 2.
Half of the students - 3.
Some of the students - 4.
Almost none of the students - 5.

14. If most of the students here could go as far as they wanted in school, how far would they go?

Finish grade school - 1.
Go to high school for a while - 2.
Finish high school - 3.
Go to college for a while - 4.
Finish college - 5.

15. How important do most of the students in this class feel it is to do well in school work?

They feel it is very important - 1.
They feel it is important - 2.
They feel it is somewhat important - 3.
They feel it is not very important - 4.
They feel it is not important at all - 5.

16. How important do you think most of the students in this school feel it is to do well in school work?

They feel it is very important - 1.
They feel it is important - 2.
They feel it is somewhat important - 3.
They feel it is not very important - 4.
They feel it is not important at all - 5.

17. How many students in this class think reading is a fun thing to do and read even when they don't have to?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

18. How many students in this school make fun of or tease students who get really good grades?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

19. How many students in this school don't do as well as they could do because they are afraid other students won't like them as much?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

REMEMBER, PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER WHICH BEST ANSWERS THE QUESTION FOR YOU. PICK ONLY ONE ANSWER FOR EACH QUESTION.

20. If students in this school did not have their work graded by teachers, how many would study hard?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

21. People like me will not have much of a chance to do what we want to in life.

Strongly agree - 1.
Agree - 2.
Disagree - 3.
Strongly disagree - 4.

22. People like me will never do well in school even though we try hard.

Strongly agree - 1.
Agree - 2.
Disagree - 3.
Strongly disagree - 4.

23. You have to be lucky to get good grades in this school.

Strongly agree - 1.
Agree - 2.
Disagree - 3.
Strongly disagree - 4.

24. Think of your friends. Do you think you can do school work better, the same or poorer than your friends?

Better than all of them - 1.
Better than most of them - 2.
About the same - 3.
Poorer than most of them - 4.
Poorer than all of them - 5.

25. When you finish high school, do you think you will be one of the best students, about the same as most or below most of the students?

One of the best - 1.
Better than most of the students - 2.
Same as most of the students - 3.
Below most of the students - 4.
One of the worst - 5.

26. How far do you think your best friend believes you will go in school?

Finish grade school - 1.
Go to high school for a while - 2.
Finish high school - 3.
Go to college for a while - 4.
Finish college - 5.

NOW WE WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE TEACHERS IN THIS SCHOOL. ANSWER THESE QUESTIONS AS YOU ANSWERED THE OTHER ONES BY CIRCLING THE NUMBER. REMEMBER, NO TEACHER WILL SEE YOUR ANSWERS, SO BE AS HONEST AS YOU CAN.

27. How many teachers in this school tell students to try to get better grades than their classmates?

Almost all of the teachers - 1.
Most of the teachers - 2.
Half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

28. Of the teachers that you know in this school, how many don't care if the students get bad grades?

Almost all of the teachers - 1.
Most of the teachers - 2.
Half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

29. Of the teachers that you know in this school, how many tell students to do extra work so that they can get better grades?

Almost all of the teachers - 1.
Most of the teachers - 2.
Half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

30. Of the teachers that you know in this school, how many make the students work too hard?

Almost all of the teachers - 1.
Most of the teachers - 2.
Half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

31. Of the teachers that you know in this school, how many don't care how hard the student works, as long as he passes?

Almost all of the teachers - 1.
Most of the teachers - 2.
Half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

32. What kind of student does the teacher you like the best expect you to be in school?

One of the best - 1.
Better than most of the students - 2.
Same as most of the students - 3.
Below most of the students - 4.
One of the worst - 5.

33. Think of your teacher. Would your teacher say you can do school work better, the same, or poorer than other people your age?

Better than all of them - 1.
Better than most of them - 2.
Same as most of them - 3.
Poorer than most of them - 4.
Poorer than all of them - 5.

34. How often do teachers in this school try to help students who do badly on their school work?

They always try to help - 1.
They usually try to help - 2.
They sometimes try to help - 3.
They seldom try to help - 4.
They never try to help - 5.

35. Compared to students in other schools, how much do students in this school learn?

They learn a lot more in this school - 1.
They learn a little more in this school - 2.
About the same as in other schools - 3.
They learn a little bit less in this school - 4.
They learn a lot less in this school - 5.

36. Compared to students from other schools, how well will most of the students from this school do in high school?

They will be among the best - 1.
They will do better than most - 2.
They will do about the same as most - 3.
They will do poorer than most - 4.
They will be among the worst - 5.

37. How important is it to teachers in this school that their students learn their school work?

It is the most important thing to the teachers - 1.
It is very important to the teachers - 2.
It is somewhat important to the teachers - 3.
It is not very important to the teachers - 4.
It is not important at all to the teachers - 5.

38. Think about the teachers you know in this school. Do you think the teachers in this school care more, or less, than teachers in other schools about whether or not their students learn their school work?

Teachers in this school care a lot more - 1.
Teachers in this school care a little more - 2.
There is no difference - 3.
Teachers in this school care a little less - 4.
Teachers in this school care a lot less - 5.

39. Does your teacher think you could finish college?

Yes, for sure - 1.
Yes, probably - 2.
Maybe - 3.
No, probably not - 4.
No, for sure - 5.

NOW WE WOULD LIKE YOU TO ANSWER SOME QUESTIONS ABOUT YOUR PARENTS. ANSWER THEM THE SAME WAY YOU ANSWERED THE OTHER ONES.

40. How far do you think your parents believe you will go in school?

Finish grade school - 1.
Go to high school for a while - 2.
Finish high school - 3.
Go to college for a while - 4.
Finish college - 5.

41. What kind of student do your parents expect you to be in school?

Better than all of them - 1.
Better than most of them - 2.
About the same - 3.
Poorer than most of them - 4.
Poorer than all of them - 5.

42. Think of your parents. Do your parents say you can do school work better, the same, or poorer than your friends?

Better than all of them - 1.
Better than most of them - 2.
About the same - 3.
Poorer than most of them - 4.
Poorer than all of them - 5.

43. Do your parents think you could finish college?

Yes, for sure - 1.
Yes; probably - 2.
Maybe - 3.
No, probably not - 4.
No, for sure - 5.

READ EACH STATEMENT BELOW. CIRCLE THE NUMBER OF THE ANSWER THAT TELLS HOW OFTEN THE STATEMENT IS TRUE FOR YOU.

44. In class, I have the same seat and I must sit next to the same students.

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

45. When I am working on a lesson, the other students in my class are working on the same lesson.

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

46. In most of my classes, the teacher tells me what I must work on; I have no choice.

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

47. In class, the teacher stands in front of the room and works with the class as a whole.

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

48. If your teacher gave you a hard assignment, would you rather figure out how to do it by yourself or would you want your teacher to tell you how to do it?

I almost always prefer figuring it out for myself - 1.
I usually prefer figuring it out for myself - 2.
Sometimes I prefer figuring it out for myself - 3.
I usually like the teacher to tell me how to do it - 4.
I always like the teacher to tell me how to do it - 5.

Appendix Nine

TEACHER QUESTIONNAIRE

The information you give us on this questionnaire is completely confidential. No one will see your answers except the members of our research staff. Reports will be made with aggregate data, and no one person will be identified with his or her data. After your questionnaire has been completely coded and punched on IBM cards, your questionnaire will be destroyed. Complete confidentiality is assured. It is very important that you be as candid as possible in your answers. Do not respond to any question that your feel is too "personal" or that you for any other reason prefer to leave unanswered.

1. Please write the name of this school.

   ____

2. Are you male or female (circle the number of the correct answer)?

   female - 1.
   male - 2.

3. What is your race or ethnic group?

   Black - 1.
   Chicano - 2.
   Other Spanish Speaking - 3.
   Native American - 4.
   Oriental Origin - 5.
   White - 6.

4. How long have you taught school (circle the number of the correct answer)?

   Just this year - 1.
   1 to 4 years - 2.
   5 to 9 years - 3.
   10 to 14 years - 4.
   15 or more years - 5.

5. How long have you taught in this school?

   Just this year - 1.
   1 to 4 years - 2.
   5 to 9 years - 3.
   10 to 14 years - 4.
   15 or more years - 5.

6. What grade level(s) are you teaching:

   ____

7. How much formal preparation do you have?
Less than a Bachelor's degree - 1.
Bachelor's degree - 2.
Some graduate work but less than Master's degree - 3.
Masters degree - 4.
More than Master's degree but not Doctorate - 5.
Doctor's degree - 6.

8. How did you feel about your assignment to this school before coming here?
Very happy about the assignment - 1.
Somewhat happy about the assignment - 2.
No feelings one way or the other - 3.
Somewhat unhappy about the assignment - 4.
Very unhappy about the assignment - 5.

9. Which best describes the students in your class(es)?
All children of professional and white collar workers - 1.
Mostly children of professional and white collar workers - 2.
Children from a general cross section of society - 3.
Mostly children of factory and other blue collar workers - 4.
All children of factory and other blue collar workers - 5.
Children of rural families - 6.

10. If you had your choice of school settings, which would you select from among the following?
All children of professional and white collar workers - 1.
Mostly children of professional and white collar workers - 2.
Children from a general cross section of society - 3.
Mostly children of factory and other blue collar workers - 4.
All children of factory and other blue collar workers - 5.
Children of rural families - 6.

11. What kind of school do you prefer to work in as far as racial composition is concerned?
An all white school - 1.
A mostly white school but with some non-white students - 2.
A school that has about half white and half non-white students - 3.
A mostly non-white school but with some white students - 4.
A school with all non-white students - 5.
I have no preference - 6.

12. In your judgment, what is the general reputation of this school among teachers outside the school?
Among the best - 1.
Better than average - 2.
About average - 3.
Below average - 4.
A poor school - 5.

13. If you had to choose a single one, which of the following sources of information do you think best predicts a pupil's success or failure in higher education?

Teacher recommendations - 1.
Group or individual intelligence or scholastic aptitude test scores - 2.
Other standardized test scores (e.g., personality and vocational inventories, etc.) - 3.
School grades - 4.
Other - 5.

WE WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT GROUPING PRACTICES AND USE OF STANDARDIZED TESTS IN THIS SCHOOL. PLEASE FEEL FREE TO WRITE ANY ADDITIONAL COMMENTS AFTER EACH QUESTION.

14. In general, how are students in the same grade level assigned to different classes?

Homogeneous grouping according to ability - 1.
Heterogeneous grouping according to ability - 2.
Random grouping - 3.
No intentional grouping - 4.
Other (indicate) ______________________________ - 5.

15. In general, how do you group the students within your class?

Homogeneous grouping according to ability - 1.
Heterogeneous grouping according to ability - 2.
Random grouping - 3.
No intentional grouping - 4.
Other (indicate) ______________________________ - 5.

16. How important do you think standardized intelligence test scores of your students are?

Very important - 1.
Somewhat important - 2.
Not very important - 3.
Not important at all - 4.
We do not give intelligence tests in this school - 5.

17. How often do your refer to or consider the I.Q. test scores of your students when you plan their work?

Very often - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

18. On the average, what level of achievement can be expected of the students in this school?

Much above national norm - 1.
Slightly above national norm - 2.
Approximately at national norm - 3.
Slightly below national norm - 4.
Much below national norm - 5.

19. On the average, what level of achievement can be expected of the students in your class?

Much above national norm - 1.
Slightly above national norm - 2.
Approximately at national norm - 3.
Slightly below national norm - 4.
Much below national norm - 5.

20. What percent of the students in this school do you expect to complete high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

21. What percent of the students in your class do you expect to complete high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

22. What percent of the students in this school do you expect to attend college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

23. What percent of the students in your class do you expect to attend college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

24. What percent of the students in this school do you expect to complete college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

25. What percent of the students in your class do you expect to complete college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

26. How many, of the students in this school are capable of getting mostly A's and B's?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3
30% - 49% - 4.
Less than 30% - 5.

27. How many of the students in your class are capable of getting mostly A's and B's?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

28. How would you rate the academic ability of the students in this school compared to other schools?

Ability here is much higher - 1.
Ability here is somewhat higher - 2.
Ability here is about the same - 3.
Ability here is somewhat lower - 4.
Ability here is much lower - 5.

29. What percent of the students in this school would you say want to complet high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

30. What percent of the students in your class would you say want to complete high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

31. What percent of the students in this school would you say want to go to college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

32. What percent of the students in your class would you say want to go to college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

PLEASE REMEMBER, YOUR ANSWERS TO ALL OF THESE QUESTIONS ARE COMPLETELY CONFIDENTIAL. NO ONE BUT OUR RESEARCH STAFF WILL SEE YOUR ANSWERS.

33. How much do you enjoy teaching in this school?

Very Much - 1.
Much - 2.
Average - 3.
Little - 4.
Not at all - 5.

34. If someone were to offer you an interesting and secure non-teaching job for $1,000 more a year, how seriously would you consider taking the job?

Very seriously - 1.
Somewhat seriously - 2.
Not very seriously - 3.
Not at all - 4.

35. If someone were to offer you an interesting and secure non-teaching job for $3,000 more a year, how seriously would you consider taking the job?

Very seriously - 1.
Somewhat seriously - 2.
Not very seriously - 3.
Not at all - 4.

36. What percent of the students in this school do you think the principal expects to complete high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

37. What percent of the students in this school do you think the principal expects to attend college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

38. What percent of the students in this school do you think the principal expects to complete college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

39. How many students in this school do you think the principal believes are capable of getting A's and B's?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

40. How do you think your principal rates the academic ability of the students in this school, compared to other schools?

Rates it much better - 1.
Rates it somewhat better - 2.
Rates it the same - 3.
Rates it somewhat lower - 4.
Rates it much lower - 5.

41. Completion of high school is a realistic goal which you set for what percentage of your students?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

42. Completion of college is a realistic goal which you set for what percentage of your students?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

43. How often do you stress to your students the necessity of a post high school education for a good job/or a comfortable life?

Very often - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

44. Do you encourage your students who do not have sufficient economic resources to aspire to go to college?

Always - 1.
Usually - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

45. Do you encourage your students who do not have sufficient academic ability to aspire to go to college?

Always - 1.
Usually - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

46. How many,teachers in this school feel that all their students should be taught to read well and master other academic subjects, even though some students may not appear to be interested?

Almost all of the teachers - 1.
Most of the teachers - 2.
About half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

47. It would be unfair for teachers in this school to insist on a higher level of achievement from students than they now seem capable of achieving.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

48. If I think a student is not able to do some school work, I don't try to push him very hard.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

49. I am generally very careful not to push students to a level of frustration.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

50. How many teachers encourage students to seek extra school work so that the students can get better grades?

Almost all of the teachers - 1.
Most of the teachers - 2.
About half of the teachers - 3.
Some of the teachers - 4.
None of the teachers - 5.

51. How many students in this school try hard to improve on previous work?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

52. How many students in your class try hard to improve on previous work?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

53. How many students in this school will try hard to do better school work than their friends do?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

54. How many students in your class will try hard to do better school work than their classmates do?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

55. How many students in your school will try hard to do better school work than their classmates do?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

56. How many students in your class are content to do less than they should?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

57. How many students in this school will seek extra work so that they can get better grades?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

58. How many students in you class will seek extra work so that they can get better grades?

Almost all of the students - 1.
Most of the students - 2.
About half of the students - 3.
Some of the students - 4.
None of the students - 5.

59. The parents of students in this school regard this school primarily as a "babysitting". agency:

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

60. The parents of students in this school are deeply concerned that their children receive a top quality education.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

61. How many of the parents of students in this school expect their children to complete high school?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

62. How many of the parents of students in this school expect their children to complete college?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

63. How many of the parents of students in this school don't care if their children obtain low grades?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

64. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

65. For each of the following aspects of your job, please indicate in the first column how important it is for your job satisfaction and in the second column, how well satisfied you are with that aspect of your job.

I Degree of Importance for your Job Satisfaction	II Present Level of Satisfaction with job

A. Salafy:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
B. Level of student achievement:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
C. Parent/teacher relationships:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
D. Teacher/teacher relationships:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
E. Teacher/pupil relationships:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
F. Teacher/administration relationships:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
G. The curricula in your school:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
H. Teacher autonomy:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.
I. Teacher authority over students:	Very important - 1.	Very satisfied - 1.
	Important - 2.	Satisfied - 2.
	Somewhat important - 3.	Somewhat satisfied - 3.
	Unimportant - 4.	Dissatisfied - 4.
	Very unimportant - 5.	Very dissatisfied - 5.

J.	Teacher evaluation procedures in your school:	Very important - 1. Important - 2. Somewhat important - 3. Unimportant - 4. Very unimportant - 5.	Very satisfied - 1. Satisfied - 2. Somewhat satisfied - 3. Dissatisfied - 4. Very dissatisfied - 5.
K.	Recognition for teacher achievement:	Very important - 1. Important - 2. Somewhat important - 3. Unimportant - 4. Very unimportant - 5.	Very satisfied - 1. Satisfied - 2. Somewhat satisfied - 3. Dissatisfied - 4. Very dissatisfied - 5.
L.	Participation in making decisions within the building:	Very important - 1. Important - 2. Somewhat important - 3. Unimportant - 4. Very unimportant - 5.	Very satisfied - 1. Satisfied - 2. Somewhat satisfied - 3. Dissatisfied - 4. Very dissatisfied - 5.

66. Administrative duties, counseling, handling of discipline problems, etc., are all time consuming activities that teachers must assume in addition to their teaching responsiblities. Approximately what percentage of a typical school day is spent on each of these activities

Parent-teacher contacts (notes to parents, phone calls, conferences) __________ %

Conferring with individual students about academic progress __________ %

Conferring with individual students about behavior or personal and social growth __________ %

Classroom or small groups instruction __________ %

Establishing and maintaining order in the classroom __________ %

Administrative duties (attendance taking, record keeping) __________ %

Time between lessons (recess, moving children from one activity to another) __________ %

Other ________________________________ __________ %

67. What do you consider to be your primary responsibility to students in your class (circle only one)?

Teaching of academic subjects - 1.
Enhancing social skills and social interaction - 2
Personal growth and development - 3.
Encouraging education/occupational aspirations - 4.
Other (please specify) ________________________________ - 5.

68. How successful would you say your school has been with regard to student development in the following areas?

A. teaching of academic skills:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

B. Enhancing of social skills:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

C. Personal growth and development (self-reliance, etc.)

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

D. Educational/occupational aspirations:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

69. How responsible do you feel for a student's academic achievement?

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

70. To what extent do you think that teaching methods affect students' achievement?

They have a great deal of effect on student's achievement - 1.
They have substantial effect on students' achievement - 2.
They have some effect on students' achievment - 3.
They do not have much effect on students' achievement - 4.
They have no effect at all - 5.

71. To what extent do you think teachers' attitudes toward their students affect their students' achievement?

They have a great deal of effect on students achievement - 1.
They have substantial effect on students' achievement - 2.
They have some effect on students' achievment - 3.
They do not have much effect on students' achievement - 4.
They have no effect at all - 5.

72. How do your academic expectations for boys compare with the expectations for girls?

I expect boys to do better - 1.
I expect both to do the same - 2.
I expect girls to do better - 3.

73. What effect do you think each of the following has on students' academic achievement?

A. Parents:

They have a great deal of effect on students achievement - 1.
They have substantial effect on students' achievement - 2.
They have some effect on students' achievment - 3.
They do not have much effect on students' achievement - 4.
They have no effect at all - 5.

B. Teachers:

They have a great deal of effect on students achievement - 1.
They have substantial effect on students' achievement - 2.
They have some effect on students' achievment - 3.
They do not have much effect on students' achievement - 4.
They have no effect at all - 5.

C. Friends or peer group:

They have a great deal of effect on students achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievment - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

D. School Boards:

They have a great deal of effect on students achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievment - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

E. **Principal:**

They have a great deal of effect on students achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievment - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

F. Student himself:

They have a great deal of effect on students achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievment - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

74. How often does the principal and/or other administrators in this school assist and give support to the teachers on ways to improve their students' academic achievement?

Very often - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

75. One important criterion for evaluating a teachers' performance should be how well his/her students achieve at a high level.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

76. In this school, there is really very little a teacher can do to assure that all of his/her students achieve at a high level.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

77. When you are trying to improve your instructional program, how easy or difficult is it to get the principal's assistance?

Very easy - 1.
Easy - 2.
Varies from time to time - 3.
Difficult - 4.
Very difficult - 5.

78. What is your policy with regard to students talking to each other while they are working on class assignments? Students are encouraged to talk with each other:

Never - 1.
Seldom - 2.
Sometimes - 3.
Often - 4.
Almost always - 5.

79. How do you feel about students walking around in the classroom? Students are allows to move about the room without first getting permission:

Never - 1.
Seldom - 2.
Sometimes - 3.
Often - 4.
Almost always - 5.

80. What kind of seating arrangement do you have in your class(es)?

Students always select their own seats - 1.
Generally students select their own seats - 2.
Some students select their seats; some are assigned - 3.
Generally teacher assigns seats - 4.
Teacher always assigns seats - 5.

81. In your class(es), how often are students' seats changed?

Several time a day - 1.
Daily - 2.
Periodically during the semester - 3.
They keep the same seats throughout the semester - 4.

82. How often do you work with your class as a whole?

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

83. How often are all of your students working on the same lesson?

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

84. How would you characterize your teaching objectives?

They are the same for all students - 1.
They are the same for most of the students - 2.
They are the same for some of the students - 3.
They are different for most of the students - 4.
They are different for each student - 5.

85. How important are each of the following in determining teaching objectives for your students?

A. School policy:

Very important - 1.
Important - 2.
Somewhat important - 3.
Not very important - 4.
Not important at all - 5.

B. Student interest:

Very important - 1.
Important - 2.
Somewhat important - 3.
Not very important - 4.
Not important at all - 5.

C. Individual student ability:

Very important - 1.
Important - 2.
Somewhat important - 3.
Not very important - 4.
Not important at all - 5.

D. Your personal preference:

Very important - 1.
Important - 2.
Somewhat important - 3.
Not very important - 4.
Not important at all - 5.

86. Do you have a teacher aide?

Yes - 1.
No - 2.

87. What proportion of your students' parents do you know when you see them?

Nearly all - 1.
About 75% - 2.
About 50% - 3.
About 25% - 4.
Only a few - 5.

Appendix Ten

PRINCIPAL QUESTIONNAIRE

THE INFORMATION YOU GIVE US ON THIS QUESTIONNAIRE IS COMPLETELY CONFIDENTIAL. NO ONE WILL SEE YOUR ANSWERS EXCEPT THE MEMBERS OF OUR RESEARCH STAFF. REPORTS WILL BE MADE WITH AGGREGATE DATA, AND NO ONE PERSON WILL BE IDENTIFIED WITH HIS OR HER DATA. AFTER YOUR QUESTIONNAIRE HAS BEEN COMPLETELY CODED AND PUNCHED ON IBM CARDS (WITHOUT YOUR NAME), YOUR QUESTIONNAIRE WILL BE DESTROYED. COMPLETE CONFIDENTIALITY IS ASSURED.

1. Please write the name of this school.

____

2. Sex (circle the number of the correct answer)?

female - 1.
male - 2.

3. What is your race or ethnic group?

Black - 1.
Chicano - 2.
Other Spanish Speaking - 3.
Native American - 4.
Oriental Origin - 5.
White - 6.

4. How long have you been the principal of this school?

Just this year - 1.
1 to 4 years - 2.
5 to 9 years - 3.
10 to 14 years - 4.
15 or more years - 5.

5. How long have you been a principal?

Just this year - 1.
1 to 4 years - 2.
5 to 9 years - 3.
10 to 14 years - 4.
15 or more years - 5.

6. How long did you teach before becoming a principal?

Never taught - 1.
1 to 4 years - 2.
5 to 9 years - 3.
10 to 14 years - 4.
15 years or more - 5.

7. How did you feel about your assignment to this school before you came here?

Very happy - 1.
Happy - 2.
Somewhat happy - 3.
Quite unhappy - 4.
Very unhappy - 5.

8. Which best describes the location of your school?

In a rural area - 1.
In a residential suburb - 2.
In an industrial suburb - 3.
In a small town (5,000 or less) - 4.
In a city of 5,000 to 50,000 - 5.
In a residential area of a larger city (over 50,000) - 6.
In the inner part of a larger city (over 50,000) - 7.

9. Which best describes the pupils served by this school?

All children of professional and white collar workers - 1.
Mostly children of professional and white collar workers - 2.
Children from a general cross section of society - 3.
Mostly children of factory and other blue collar workers - 4.
All children of factory and other blue collar workers - 5.
Children of rural families - 6.

10. How many families of your students are represented at a typical meeting of the PTA or similar parent group?

We have no parents organization - 1.
Only a few - 2.
Less than half - 3.
About half - 4.
Over half - 5.
Almost all of them - 6.

11. About what is the average daily percentage of attendance in your school?

Over 98% - 1.
97% - 98% - 2.
95% - 96% - 3.
93% - 94% - 4.
91% - 92% - 5.
96% - 90% - 6.
85% or less - 7.

12. What percentage of your students this year are transfers from another school? (Do not count students who had completed the highest grade in the school from which they came.)

0 - 4% - 1.
5% - 9% - 2.
10% - 14% - 3.
15% - 19% - 4.
20% - 24% - 5.
25% or more - 6.

13. What is the lowest grade in your school?

Kindergarten - 1.
1st - 2.
2nd - 3.
3rd - 4.
4th - 5.

14. What is the highest grade in your school?

5th - 1.
6th - 2.
7th - 3.
8th - 4.
9th - 5.

15. What percent of students in your school receives free lunches each day?

None - 1.
9% or less - 2.
10% - 30% - 3.
31% - 50% - 4.
51% - 70% - 5.
71% - 90% - 6.
More than 90% - 7.
There is no free lunch program - 8.

16. In your judgment, what is the general reputation of this school among educators?

Among the best - 1.
Better than average - 2.
About average - 3.
Below average - 4.
Inferior - 5.

17. With regard to student achievement, how would you rate this school?

Among the best - 1.
Better than average - 2.
About average - 3.
Below average - 4.
Inferior - 5.

18. With regard to student achievement, how good a school do you think this school can be?

Among the best - 1.
Better than average - 2.
About average - 3.
Below average - 4.
Inferior - 5.

19. What do you consider to be the school's primary responsibility to the students?

Teaching of academic subjects - 1.
Enhancing social skills - 2.
Personal growth and development - 3.
Educational/occupational aspirations - 4.
Other (please specify) ________________________________ - 5.

20. How successful would you say your school has been with regard to student development in the following areas?

A. Teaching of academic skills:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

B. Enhancing social skills (social interaction, etc.):

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

C. Personal growth and development:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

D. Educational/occupational aspirations:

Very successful - 1.
Successful - 2.
Somewhat successful - 3.
Not very successful - 4.
Very unsuccessful - 5.

WE WOULD NOW LIKE TO ASK YOU SOME QUESTIONS ABOUT GROUPING PRACTICES, TEACHER CREDENTIALS AND TESTING PROCEDURES IN YOUR SCHOOL. PLEASE FEEL FREE TO WRITE ANY ADDITIONAL COMMENTS AFTER EACH QUESTION.

21. In general, what grouping procedure is practiced across sections of particular grade levels in this school?

Homogeneous grouping according to ability - 1.
Heterogeneous grouping according to ability - 2.
Random grouping - 3.
No intentional grouping - 4.

22. In general, what grouping procedure is practiced within individual sections of particular grade levels of this school?

Homogeneous grouping according to ability - 1.
Heterogeneous grouping according to ability - 2.
Random grouping - 3.
No intentional grouping - 4.

23. To what extent do the upper elementary teachers, 3-6 grades, individualize the instructional programs for their students?

All plan individual programs for most students - 1.
Most teacher have some individualized programs - 2.
Individualization varies from teacher to teacher and time to time - 3.
Most teachers have common instructional programs for their students - 4.
All teachers have common instructional programs for their students - 5.

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24. Do you have any non-graded classrooms for children over eight years of age in this school?
Yes, all are non-graded - 1.
Yes, some are non-graded - 2.
No, we haven't any non-graded classrooms - 3.

25. What proportion of the third grade classrooms in your school have teacher aides?
All - 1.
Some - 2.
None - 3.

26. How many teachers in this school have at least a Bachelor's degree?
All - 1.
75% or more - 2.
50% - 74% - 3.
Less than 50% - 4.

27. How many teachers in this school have a temporary teaching certificate?
75% or more - 1.
50% - 74% - 2.
25% - 49% - 3.
Less than 25% - 4.

28. How many teacher in this school have a permanent teaching certificate?
75% or more - 1.
50% - 74% - 2.
25% - 49% - 3.
Less than 25% - 4.

29. How many teachers in this school have a graduate degree?
75% or more - 1.
50% - 74% - 2.
25% - 49% - 3.
Less than 25% - 4.

30. In what grade does your school give intelligence or aptitude tests to the students (circle all that apply)?
1st grade - 1.
2nd grade - 2.
3rd grade - 3.
4th grade - 4.
5th grade - 5.
6th grade - 6.
Do not give I.Q. or aptitude tests - 7.

31. In what grade does your school give standardized achievement tests to students? (Circle all correct answers. Do not include State Assessment.)
1st grade - 1.
2nd grade - 2.
3rd grade - 3.
4th grade - 4.
5th grade - 5.
6th grade - 6.

32. How often do teachers in this school refer to, or consider, a student's I.Q. or aptitude score when planning his work?

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

33. In this school, how often are students assigned to certain classes on the basis of their I.Q. or aptitude scores?

Always - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

34. Which of the following do you think best predicts a pupil's success of failure in higher education?

Teacher recommendations - 1.
Group or individual intelligence or scholastic aptitude test scores - 2.
Other standardized test scores (e.g., personality and vocational inventories, etc.) - 3.
School grades - 4.
Other - 5.

PLEASE ANSWER EACH OF THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER OF THE CHOICE WHICH MOST NEARLY ANSWERS THE QUESTION FOR YOU.

35. On the average, what achievement level can be expected of the students in this school?

Much above national norm - 1.
Slightly above national norm - 2.
Approximately at national norm - 3.
Slightly below national norm - 4.
Much below national norm - 5.

36. What percent of the students in this school do you expect to complete high school?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

37. What percent of the students in this school do you expect to attend college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

38. What perçent of the students in this school do you expect to complete college?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

39. How many of the students in this school are capable of getting good grades?

90% or more - 1.
70% - 89% - 2.
50% - 69% - 3.
30% - 49% - 4.
Less than 30% - 5.

40. How would you rate the academic ability of the students in this school compared to other schools?

Ability here is much higher - 1.
Ability here is somewhat higher - 2.
Ability here is about the same - 3.
Ability here is somewhat lower - 4.
Ability here is much lower - 5.

41. The parents of students in this school regard this school as primarily a "babysitting" agency.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

42. The parents of students in this school are deeply concerned that their children receive a top quality education.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

43. How many of the parents of students in this school expect their children to complete high school?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

44. How many of the parents of students in this school expect their children to complete college?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

45. How many of the parents of students in this school don't care if their children obtain low grades?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

46. How many of the parents of students in this school want feedback from the principal and teachers on how their children are doing in school?

Almost all of the parents - 1.
Most of the parents - 2.
About half of the parents - 3.
Some of the parents - 4.
Almost none of the parents - 5.

47. What proportion of the teachers in this school would prefer to be teaching in another school?

About all - 1.
About 75% - 2.
About half - 3.
About 25% - 4.
Almost none - 5.

48. A typical teacher in this school has some contact with:

All of the parents - 1.
Most of the parents - 2.
Some of the parents - 3.
A few of the parents - 4.
None of the parents - 5.

49. How much contact does a typical teacher in this school have with most of the parents?

About once a month or more - 1.
About two times a semester - 2.
About once a semester - 3.
Once a year or less - 4.

50. Approximately what percentage of a typical school day does the average teacher spend on each of these activites?

Parent-teacher contacts (notes to parents, phone calls, conferences) ________ %
Conferring with individual students (about academic progress) ________ %
Conferring with individual students (about behavior, social growth, responsibility) ________ %
Administrative duties (attendance taking, noting pupil progress, filling out report cards) ________ %
Establishing and maintaining order in the classroom ________ %
Classroom and small group instruction ________ %
Time between lessons (before and after recess, moving children from one activity to another) ________ %
Other (specify)________________________ ________ %
TOTAL ________ %

51. Evaluating teachers' performance is an important and often difficult task for principals. When evaluating a teacher's performance, how much importance do you place on his/her students' academic achievement?

It is very important - 1.
It is quite important - 2.
It is somewhat important - 3.
It is not very important - 4.
It is not important at all - 5.

52. As a principal, how much effect do you think you have on students' academic achievement?

Very great effect - 1.
Substantial effect - 2.
Some effect - 3.
Very little effect - 4.
No effect at all - 5.

53. What percentage of the students in this school do you feel are capable of learning to read by the end of second grade?

100% - 1.
90% - 99% - 2.
80% - 89% - 3.
70% - 79% - 4.
50% - 69% - 5.
Less than 50% - 6.

54. What effect do you think each of the following has on students' academic achievement in this school?

A. Parents:

They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

B. Teachers:

They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

C. Friends or peer group:

They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

D. School boards:
They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

E. Principal:
They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

F. Student himself:
They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

55. How often do you suggest ways of improving student achievement to your teachers?
Very often - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

56. How often do you meet with the teachers as a group to discuss ways of improving student achievement?
Very often - 1.
Often - 2.
Sometimes - 3.
Seldom - 4.
Never - 5.

57. To what extent do you think teaching methods affect students' academic achievement?
They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

58. To what extent do you think that a teacher's attitude toward his/her students affects students' academic achievement?
They have a great deal of effect on student achievement - 1.
They have substantial effect on student achievement - 2.
They have some effect on student achievement - 3.
They do not have much effect on student achievement - 4.
They have no effect at all - 5.

59. To what extent do you think the degree to which their students achieve grade level in learning should be considered in evaluating a teachers' competence?

Very much - 1.
Some - 2.
Not much - 3.
Not at all - 4.

60. If the teachers and other staff members in this school were all doing their job well, nearly all of the students would achieve at grade level.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

61. It is the principal's responsibility to work with the teachers to insure that their students achieve at a high level.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

62. It is possible for a principal, with the cooperation of the teachers, to change a low achieving school into a high achieving school.

Strongly agree - 1.
Agree - 2.
Unsure - 3.
Disagree - 4.
Strongly disagree - 5.

63. How would you characterize the achievement objectives in this school?

Same for all students - 1.
Same for most students - 2.
Different for most students - 3.
Different for all students - 4.

64. About what proportion of teachers in this school assign seats to their students?

Almost all of the teachers - 1.
Most of the teachers - 2.
About half of the teachers - 3.
Some of the teachers - 4.
Almost none of the teachers - 5.

65. About what proportion of teachers in this school allow their students to move about the classroom without first asking permission?

Almost all of the teachers - 1.
Most of the teachers - 2.
About half of the teachers - 3.
Some of the teachers - 4.
Almost none of the teachers - 5.

66. What proportion of the classrooms in your school have teacher aides?

All - 1.
Most - 2.
About half - 3.
Less than half - 4.
None - 5.

67. What percentage of your time in a typical week is devoted to each of the following activities?

Long range curriculum planning __________ %
Supervision of instructional staff __________ %
Supervision of non-instructional staff __________ %
Parent and community concerns __________ %
Discipline __________ %
Other administrative duties __________ %
TOTAL __________ %

68. What proportion of the students' parents do you know when you see them?

Nearly all - 1.
About 75% - 2.
About 50% - 3.
About 25% - 4.
Only a few - 5.

Appendix Eleven

CLASS ______________________ OBSERVER ______________________
TIME IN ______________________ TIME OUT ______________________
NUMBER OF STUDENTS ______________

* For time spent in non-instructional activities, enter M for managerial, D for discipline, or E for else. For time spent in instruction, enter the number of students not engaged.

1 min. a ________
b ________
c ________
d ________
2 min. a ________
b ________
c ________
d ________
3 min. a ________
b ________
c ________
d ________
4 min. a ________
b ________
c ________
d ________
5 min. a ________
b ________
c ________
d ________
6 min. a ________
b ________
c ________
d ________
7 min. a ________
b ________
c ________
d ________
8 min. a ________
b ________
c ________
d ________
9 min. a ________
b ________
c ________
d ________
10 min. a ________
b ________
c ________
d ________

11 min. a ________
b ________
c ________
d ________
12 min. a ________
b ________
c ________
d ________
13 min. a ________
b ________
c ________
d ________
14 min. a ________
b ________
c ________
d ________
15 min. a ________
b ________
c ________
d ________
16 min. a ________
b ________
c ________
d ________
17 min. a ________
b ________
c ________
d ________
18 min. a ________
b ________
c ________
d ________
19 min. a ________
b ________
c ________
d ________
20 min. a ________
b ________
c ________
d ________

21 min. a ________
b ________
c ________
d ________
22 min. a ________
b ________
c ________
d ________
23 min. a ________
b ________
c ________
d ________
24 min. a ________
b ________
c ________
d ________
25 min. a ________
b ________
c ________
d ________
26 min. a ________
b ________
c ________
d ________
27 min. a ________
b ________
c ________
d ________
28 min. a ________
b ________
c ________
d ________
29 min. a ________
b ________
c ________
d ________
30 min. a ________
b ________
c ________
d ________

PAGE TOTALS: (Time spent in)
Managerial ______ Discipline ______ Else ______ Instruction ______

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